



June 13, 2012

Analytical Report for Service Request No: K1204434

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

RE: Walla Walla Sudbury LF RI

Dear Craig:

Enclosed are the results of the sample submitted to our laboratory on May 09, 2012. For your reference, these analyses have been assigned our service request number K1204434.

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. 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 3291. You may also contact me via Email at Ed.Wallace@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Ed Wallace
Project Manager

EW/tj

Page 1 of 20



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Columbia Analytical Services, Inc.

Part of the ALS Group A Campbell Brothers Limited Company

Environmental

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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. - Kelso
State Certifications, Accreditations, and Licenses**

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

PROJECT NAME <i>Walla Walla Sudbury LF RI</i>					NUMBER OF CONTAINERS	Semi-volatile Organics by GC/MS 625 <input type="checkbox"/> 8270 <input type="checkbox"/> 8270LL <input type="checkbox"/>	Volatile Organics 624 <input type="checkbox"/> 8260 <input type="checkbox"/>	Hydrocarbons Gas <input type="checkbox"/> 8021 <input type="checkbox"/>	Diesel <input type="checkbox"/>	Fuel Fingerprint (FIO) <input type="checkbox"/>	Oil <input type="checkbox"/>	Oil & Grease/TPH 1664 HEM <input type="checkbox"/> 1664 SGT <input type="checkbox"/>	PCB's <input type="checkbox"/>	Aroclors <input type="checkbox"/>	Congeners <input type="checkbox"/>	Pesticides/Herbicides 608 <input type="checkbox"/> 8081A <input type="checkbox"/>	Chlorophenolics Tri <input type="checkbox"/> Tetra <input type="checkbox"/>	8141A <input type="checkbox"/> 8151A <input type="checkbox"/>	PAHS 8310 <input type="checkbox"/> SIM <input type="checkbox"/>	Metals, Total or Dissolved (See list below)	Cyanide <input type="checkbox"/>	pH, Cond., Cl, SO ₄ , NO ₃ , BOD, TSS, TDS	PO ₄ , F, NO ₃ -N, COD, Total-P, TKN, TOC, DOC (circle) NO ₂ +NO ₃	AOX 1650 <input type="checkbox"/> 506 <input type="checkbox"/>	REMARKS
PROJECT NUMBER																									
PROJECT MANAGER <i>Craig Schwyn</i>																									
COMPANY/ADDRESS <i>Schwyn Environmental</i>																									
CITY/STATE/ZIP <i>Spokane WA 99223</i>																									
E-MAIL ADDRESS <i>Craig@SchwynEnviro.com</i>																									
PHONE # <i>509 448 3187</i> FAX #																									
SAMPLER'S SIGNATURE <i>Craig Schwyn</i>																									
SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX																					
<i>GW10@56'</i>	<i>5/8/12</i>	<i>9:30</i>		<i>Soil 4</i>		<input checked="" type="checkbox"/>																			
<i>Renamed: GW11@56'</i>																									

REPORT REQUIREMENTS <input type="checkbox"/> I. Routine Report: Method Blank, Surrogate, as required <input checked="" type="checkbox"/> II. Report Dup., MS, MSD as required <input type="checkbox"/> III. Data Validation Report (includes all raw data) <input type="checkbox"/> IV. CLP Deliverable Report <input type="checkbox"/> V. EDD	INVOICE INFORMATION P.O. # _____ Bill To: <i>Schwyn Environmental</i>	Circle which metals are to be analyzed: Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg *INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: _____ (CIRCLE ONE)
	TURNAROUND REQUIREMENTS <input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input type="checkbox"/> 5 Day <input checked="" type="checkbox"/> Standard (10-15 working days) <input type="checkbox"/> Provide FAX Results Requested Report Date _____	SPECIAL INSTRUCTIONS/COMMENTS: <div style="background-color: black; width: 200px; height: 80px; margin: 10px 0;"></div> <input type="checkbox"/> Sample Shipment contains USDA regulated soil samples (check box if applicable)

RELINQUISHED BY: <i>Craig Schwyn</i> <i>5/8/12 10:30</i> Signature Date/Time <i>Craig Schwyn Schwyn Enviro</i> Printed Name Firm	RECEIVED BY: <i>Fed EX</i> <i>5/8/12</i> Signature Date/Time Printed Name Firm	RELINQUISHED BY: Signature Date/Time Printed Name Firm	RECEIVED BY: <i>Zany</i> <i>5/9/12 9/10</i> Signature Date/Time <i>Zany</i> Printed Name Firm
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PC Ed

Cooler Receipt and Preservation Form

Client / Project: City of Walla Walla Service Request K12 44/34

Received: 5/9/12 Opened: 5/9/12 By: BST Unloaded: 5/9/12 By: BST

- 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	NA	Tracking Number	NA	Filed
<u>0.3</u>	<u>n/a</u>	<u>287</u>		<input checked="" type="radio"/>	<u>8426 1130 6498</u>		

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

Notes, Discrepancies, & Resolutions: _____

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Analytical Results

Client: Walla Walla, City of
Project: Walla Walla Sudbury LF RI
Sample Matrix: Soil

Service Request: K1204434

Total Solids

Prep Method: NONE
Analysis Method: 160.3M
Test Notes:

Units: PERCENT
Basis: Wet

Sample Name	Lab Code	Date Collected	Date Received	Date Analyzed	Result	Result Notes
GW11@56'	K1204434-001	05/08/2012	05/09/2012	05/15/2012	84.6	

QA/QC Report

Client: Walla Walla, City of
Project: Walla Walla Sudbury LF RI
Sample Matrix: Soil

Service Request: K1204434
Date Collected: 05/08/2012
Date Received: 05/09/2012
Date Analyzed: 05/15/2012

Duplicate Sample Summary
Total Solids

Prep Method: NONE
Analysis Method: 160.3M
Test Notes:

Units: PERCENT
Basis: Wet

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
GW11@56'	K1204434-001	84.6	84.7	84.7	<1	

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Analytical Results

Client: Schwyn Environmental Services
Project: Walla Walla Sudbury LF RI
Sample Matrix: Soil

Service Request: K1204434
Date Collected: 05/08/2012
Date Received: 05/09/2012

Volatile Organic Compounds

Sample Name: GW11@56'
Lab Code: K1204434-001
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
Chloromethane	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
Vinyl Chloride	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
Bromomethane	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	*
Chloroethane	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
Trichlorofluoromethane	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
1,1-Dichloroethene	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
Carbon Disulfide	6.7		5.6	1	05/16/12	05/16/12	KWG1205094	*
Methylene Chloride	170		12	1	05/16/12	05/16/12	KWG1205094	
Acrylonitrile	ND	U	23	1	05/16/12	05/16/12	KWG1205094	
trans-1,2-Dichloroethene	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
1,1-Dichloroethane	8.8		5.6	1	05/16/12	05/16/12	KWG1205094	
Vinyl Acetate	ND	U	23	1	05/16/12	05/16/12	KWG1205094	
cis-1,2-Dichloroethene	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
Bromochloromethane	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
Chloroform	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
1,1,1-Trichloroethane (TCA)	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
Carbon Tetrachloride	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
Benzene	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
1,2-Dichloroethane (EDC)	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
Trichloroethene (TCE)	5.8		5.6	1	05/16/12	05/16/12	KWG1205094	
1,2-Dichloropropane	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
Dibromomethane	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
Bromodichloromethane	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
cis-1,3-Dichloropropene	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
4-Methyl-2-pentanone (MIBK)	53		23	1	05/16/12	05/16/12	KWG1205094	
Toluene	9.0		5.6	1	05/16/12	05/16/12	KWG1205094	
trans-1,3-Dichloropropene	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
1,1,2-Trichloroethane	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
Tetrachloroethene (PCE)	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
2-Hexanone	ND	U	23	1	05/16/12	05/16/12	KWG1205094	
Dibromochloromethane	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
1,2-Dibromoethane (EDB)	ND	U	23	1	05/16/12	05/16/12	KWG1205094	
Chlorobenzene	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
Ethylbenzene	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Results

Client: Schwyn Environmental Services
Project: Walla Walla Sudbury LF RI
Sample Matrix: Soil

Service Request: K1204434
Date Collected: 05/08/2012
Date Received: 05/09/2012

Volatile Organic Compounds

Sample Name: GW11@56'
Lab Code: K1204434-001
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
m,p-Xylenes	8.5		5.6	1	05/16/12	05/16/12	KWG1205094	
o-Xylene	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
Styrene	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
Bromoform	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
cis-1,4-Dichloro-2-butene	ND	U	23	1	05/16/12	05/16/12	KWG1205094	
1,1,2,2-Tetrachloroethane	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
trans-1,4-Dichloro-2-butene	ND	U	23	1	05/16/12	05/16/12	KWG1205094	
1,2,3-Trichloropropane	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
1,4-Dichlorobenzene	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
1,2-Dichlorobenzene	ND	U	5.6	1	05/16/12	05/16/12	KWG1205094	
1,2-Dibromo-3-chloropropane	ND	U	23	1	05/16/12	05/16/12	KWG1205094	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	130	82-146	05/16/12	Acceptable
Toluene-d8	131	90-142	05/16/12	Acceptable
4-Bromofluorobenzene	109	88-127	05/16/12	Acceptable

Comments: _____

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Analytical Results

Client: Schwyn Environmental Services
Project: Walla Walla Sudbury LF RI
Sample Matrix: Soil

Service Request: K1204434
Date Collected: 05/08/2012
Date Received: 05/09/2012

Volatile Organic Compounds

Sample Name: GW11@56'
Lab Code: K1204434-001
Extraction Method: EPA 5035A/5030B
Analysis Method: 8260C

Units: mg/Kg
Basis: Dry
Level: Med

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Acetone	6.5		2.8	1	05/17/12	05/17/12	KWG1205663	*
Iodomethane	ND	U	0.68	1	05/17/12	05/17/12	KWG1205663	*
2-Butanone (MEK)	16		2.8	1	05/17/12	05/17/12	KWG1205663	

* See Case Narrative

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Results

Client: Schwyn Environmental Services
Project: Walla Walla Sudbury LF RI
Sample Matrix: Soil

Service Request: K1204434
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1205094-5
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
Chloromethane	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
Vinyl Chloride	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
Bromomethane	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	*
Chloroethane	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
Trichlorofluoromethane	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
1,1-Dichloroethene	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
Acetone	ND	U	20	1	05/16/12	05/16/12	KWG1205094	
Iodomethane (Methyl Iodide)	ND	U	20	1	05/16/12	05/16/12	KWG1205094	
Carbon Disulfide	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
Methylene Chloride	ND	U	10	1	05/16/12	05/16/12	KWG1205094	
Acrylonitrile	ND	U	20	1	05/16/12	05/16/12	KWG1205094	
trans-1,2-Dichloroethene	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
1,1-Dichloroethane	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
Vinyl Acetate	ND	U	20	1	05/16/12	05/16/12	KWG1205094	
cis-1,2-Dichloroethene	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
2-Butanone (MEK)	ND	U	20	1	05/16/12	05/16/12	KWG1205094	
Bromochloromethane	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
Chloroform	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
Carbon Tetrachloride	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
Benzene	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
1,2-Dichloroethane (EDC)	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
Trichloroethene (TCE)	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
1,2-Dichloropropane	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
Dibromomethane	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
Bromodichloromethane	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
cis-1,3-Dichloropropene	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	05/16/12	05/16/12	KWG1205094	
Toluene	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
trans-1,3-Dichloropropene	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
1,1,2-Trichloroethane	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
Tetrachloroethene (PCE)	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: Walla Walla Sudbury LF RI
Sample Matrix: Soil

Service Request: K1204434
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1205094-5
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	05/16/12	05/16/12	KWG1205094	
Dibromochloromethane	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
1,2-Dibromoethane (EDB)	ND	U	20	1	05/16/12	05/16/12	KWG1205094	
Chlorobenzene	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
Ethylbenzene	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
1,1,1,2-Tetrachloroethane	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
m,p-Xylenes	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
o-Xylene	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
Styrene	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
Bromoform	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
cis-1,4-Dichloro-2-butene	ND	U	20	1	05/16/12	05/16/12	KWG1205094	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
trans-1,4-Dichloro-2-butene	ND	U	20	1	05/16/12	05/16/12	KWG1205094	
1,2,3-Trichloropropane	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
1,4-Dichlorobenzene	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
1,2-Dichlorobenzene	ND	U	5.0	1	05/16/12	05/16/12	KWG1205094	
1,2-Dibromo-3-chloropropane	ND	U	20	1	05/16/12	05/16/12	KWG1205094	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	125	82-146	05/16/12	Acceptable
Toluene-d8	123	90-142	05/16/12	Acceptable
4-Bromofluorobenzene	111	88-127	05/16/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Results

Client: Schwyn Environmental Services
Project: Walla Walla Sudbury LF RI
Sample Matrix: Soil

Service Request: K1204434
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1205663-5
Extraction Method: EPA 5035A/5030B
Analysis Method: 8260C

Units: mg/Kg
Basis: Dry
Level: Med

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Acetone	ND	U	2.0	1	05/17/12	05/17/12	KWG1205663	*
Iodomethane	ND	U	0.50	1	05/17/12	05/17/12	KWG1205663	*
2-Butanone (MEK)	ND	U	2.0	1	05/17/12	05/17/12	KWG1205663	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	55-132	05/17/12	Acceptable
Toluene-d8	97	81-124	05/17/12	Acceptable
4-Bromofluorobenzene	109	64-132	05/17/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Schwyn Environmental Services
Project: Walla Walla Sudbury LF RI
Sample Matrix: Soil

Service Request: K1204434

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: PERCENT
Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>
GW11@56'	K1204434-001	130	131	109
Method Blank	KWG1205094-5	125	123	111
Lab Control Sample	KWG1205094-3	127	131	115
Duplicate Lab Control Sample	KWG1205094-4	130	131	112

Surrogate Recovery Control Limits (%)

Sur1 = Dibromofluoromethane	82-146
Sur2 = Toluene-d8	90-142
Sur3 = 4-Bromofluorobenzene	88-127

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: Schwyn Environmental Services
Project: Walla Walla Sudbury LF RI
Sample Matrix: Soil

Service Request: K1204434

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5035A/5030B
Analysis Method: 8260C

Units: PERCENT
Level: Med

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>
Batch QC	K1204398-011	95	114	116
Method Blank	KWG1205663-5	106	97	109
Batch QCMS	KWG1205663-1	103	113	109
Batch QCDMS	KWG1205663-2	99	115	112
Lab Control Sample	KWG1205663-3	108	114	113
Duplicate Lab Control Sample	KWG1205663-4	99	122	114

Surrogate Recovery Control Limits (%)

Sur1 = Dibromofluoromethane	55-132
Sur2 = Toluene-d8	81-124
Sur3 = 4-Bromofluorobenzene	64-132

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: Schwyn Environmental Services
Project: Walla Walla Sudbury LF RI
Sample Matrix: Soil

Service Request: K1204434
Date Extracted: 05/17/2012
Date Analyzed: 05/17/2012

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

Sample Name: Batch QC
Lab Code: K1204398-011
Extraction Method: EPA 5035A/5030B
Analysis Method: 8260C

Units: mg/Kg
Basis: Dry
Level: Med
Extraction Lot: KWG1205663

Analyte Name	Sample Result	Batch QCMS KWG1205663-1 Matrix Spike			Batch QCDMS KWG1205663-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Acetone	ND	10.5	10.0	105	9.48	10.0	95	70-135	10	40
Iodomethane	ND	6.46	6.00	108	5.23	6.00	87	10-188	21	40
2-Butanone (MEK)	ND	11.5	10.0	115	11.5	10.0	115	77-140	0	40

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.

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QA/QC Report

Client: Schwyn Environmental Services
Project: Walla Walla Sudbury LF RI
Sample Matrix: Soil

Service Request: K1204434
Date Extracted: 05/16/2012
Date Analyzed: 05/16/2012

**Lab Control Spike/Duplicate Lab Control Spike Summary
 Volatile Organic Compounds**

Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG1205094

Analyte Name	Lab Control Sample KWG1205094-3 Lab Control Spike			Duplicate Lab Control Sample KWG1205094-4 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Expected	%Rec	Result	Expected	%Rec			
Dichlorodifluoromethane	40.3	50.0	81	43.1	50.0	86	38-160	7	40
Chloromethane	42.4	50.0	85	44.3	50.0	89	37-146	4	40
Vinyl Chloride	41.0	50.0	82	42.6	50.0	85	54-127	4	40
Bromomethane	41.2	50.0	82	43.8	50.0	88	22-180	6	40
Chloroethane	47.8	50.0	96	47.1	50.0	94	51-122	1	40
Trichlorofluoromethane	40.0	50.0	80	40.6	50.0	81	51-140	1	40
1,1-Dichloroethene	51.5	50.0	103	53.6	50.0	107	64-152	4	40
Acetone	179	250	72	186	250	75	32-135	4	40
Iodomethane (Methyl Iodide)	89.9	100	90	90.6	100	91	33-160	1	40
Carbon Disulfide	111	100	111	112	100	112	55-141	1	40
Methylene Chloride	46.2	50.0	92	47.0	50.0	94	65-122	2	40
Acrylonitrile	111	100	111	114	100	114	18-179	3	40
trans-1,2-Dichloroethene	48.1	50.0	96	49.7	50.0	99	63-127	3	40
1,1-Dichloroethane	46.0	50.0	92	46.6	50.0	93	59-137	1	40
Vinyl Acetate	155	180	86	155	180	86	45-158	0	40
cis-1,2-Dichloroethene	46.3	50.0	93	47.6	50.0	95	62-138	3	40
2-Butanone (MEK)	219	250	88	224	250	90	54-116	2	40
Bromochloromethane	51.8	50.0	104	51.6	50.0	103	65-131	0	40
Chloroform	50.8	50.0	102	51.9	50.0	104	61-137	2	40
1,1,1-Trichloroethane (TCA)	51.4	50.0	103	51.9	50.0	104	59-146	1	40
Carbon Tetrachloride	51.1	50.0	102	52.4	50.0	105	51-135	3	40
Benzene	52.3	50.0	105	53.2	50.0	106	68-122	2	40
1,2-Dichloroethane (EDC)	51.4	50.0	103	51.0	50.0	102	65-121	1	40
Trichloroethene (TCE)	43.5	50.0	87	44.7	50.0	89	67-126	3	40
1,2-Dichloropropane	42.1	50.0	84	42.5	50.0	85	71-121	1	40
Dibromomethane	44.1	50.0	88	43.7	50.0	87	68-125	1	40
Bromodichloromethane	44.0	50.0	88	45.1	50.0	90	61-143	2	40
cis-1,3-Dichloropropene	46.8	50.0	94	47.4	50.0	95	58-138	1	40
4-Methyl-2-pentanone (MIBK)	240	250	96	248	250	99	69-126	3	40
Toluene	45.9	50.0	92	47.1	50.0	94	75-117	3	40
trans-1,3-Dichloropropene	43.9	50.0	88	42.8	50.0	86	63-121	2	40
1,1,2-Trichloroethane	44.0	50.0	88	43.7	50.0	87	72-118	1	40
Tetrachloroethene (PCE)	43.5	50.0	87	42.0	50.0	84	66-126	4	40
2-Hexanone	244	250	97	234	250	93	67-121	4	40
Dibromochloromethane	44.6	50.0	89	43.0	50.0	86	69-120	4	40

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.

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QA/QC Report

Client: Schwyn Environmental Services
Project: Walla Walla Sudbury LF RI
Sample Matrix: Soil

Service Request: K1204434
Date Extracted: 05/16/2012
Date Analyzed: 05/16/2012

**Lab Control Spike/Duplicate Lab Control Spike Summary
 Volatile Organic Compounds**

Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG1205094

Analyte Name	Lab Control Sample KWG1205094-3 Lab Control Spike			Duplicate Lab Control Sample KWG1205094-4 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Expected	%Rec	Result	Expected	%Rec			
1,2-Dibromoethane (EDB)	44.7	50.0	89	42.6	50.0	85	71-116	5	40
Chlorobenzene	43.6	50.0	87	42.1	50.0	84	70-116	3	40
Ethylbenzene	44.9	50.0	90	44.0	50.0	88	70-118	2	40
1,1,1,2-Tetrachloroethane	42.4	50.0	85	41.4	50.0	83	71-119	2	40
m,p-Xylenes	93.0	100	93	90.2	100	90	69-127	3	40
o-Xylene	45.4	50.0	91	44.2	50.0	88	69-124	3	40
Styrene	47.6	50.0	95	45.4	50.0	91	62-135	5	40
Bromoform	43.6	50.0	87	41.7	50.0	83	62-134	4	40
cis-1,4-Dichloro-2-butene	70.6	100	71	66.0	100	66	10-175	7	40
1,1,2,2-Tetrachloroethane	38.3	50.0	77	39.0	50.0	78	60-128	2	40
trans-1,4-Dichloro-2-butene	66.8	80.0	83	68.4	80.0	86	26-204	2	40
1,2,3-Trichloropropane	40.0	50.0	80	40.2	50.0	80	53-134	1	40
1,4-Dichlorobenzene	40.0	50.0	80	40.2	50.0	80	69-125	0	40
1,2-Dichlorobenzene	38.9	50.0	78	39.2	50.0	78	67-124	1	40
1,2-Dibromo-3-chloropropane	40.3	50.0	81	40.4	50.0	81	55-127	0	40

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

QA/QC Report

Client: Schwyn Environmental Services
Project: Walla Walla Sudbury LF RI
Sample Matrix: Soil

Service Request: K1204434
Date Extracted: 05/17/2012
Date Analyzed: 05/17/2012

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5035A/5030B
Analysis Method: 8260C

Units: mg/Kg
Basis: Dry
Level: Med
Extraction Lot: KWG1205663

Lab Control Sample
KWG1205663-3
Lab Control Spike

Analyte Name	Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
Acetone	5.50	5.00	110	47-142
Iodomethane	3.35	3.00	112	44-166
2-Butanone (MEK)	5.48	5.00	110	65-139

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 5, 2012

Analytical Report for Service Request No: K1204954

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

RE: Sudbury Road Lanfill RI

Dear Craig:

Enclosed are the results of the samples submitted to our laboratory on May 23, 2012. For your reference, these analyses have been assigned our service request number K1204954.

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. 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 3291. You may also contact me via Email at Ed.Wallace@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc.


Ed Wallace
Project Manager

EW/tj

Page 1 of 21



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Environmental 

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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. - Kelso
State Certifications, Accreditations, and Licenses**

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

Service Request No.: K1204954
Date Received: 5/23/12

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: Laboratory Duplicate (DUP), Matrix Spike (MS), and Laboratory Control Sample (LCS).

Sample Receipt

Three soil samples were received for analysis at ALS Environmental on 5/23/12. Because they were lost in transit the temperature of the cooler was 16.9 C. Otherwise, the samples were received in good condition and consistent with the accompanying chain of custody form. After consultation with Craig Schwyn, testing commenced. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Volatile Organic Compounds by EPA Method 8260

Initial Calibration Exceptions:

The Second Source criterion was exceeded for Iodomethane and cis-1,4-Dichloro-2-butene in Initial Calibration ICAL ID 11572. These analytes are reported as tic targets.

Calibration Verification Exceptions:

The following analytes were flagged as outside the upper control criterion for Continuing Calibration Verification (CCV) J:\MS27\0604F004.D: Toluene-d8 and 4-Bromofluorobenzene. The following analytes were flagged as outside the lower control criterion for Continuing Calibration Verification (CCV) J:\MS27\0604F004.D: Dichlorodifluoromethane, Bromomethane, and 2-Butanone (MEK). 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 CAS minimum relative response factor criterion for Trichloroethene (TCE) was not met in Continuing Calibration Verification (CCV) J:\MS27\0604F004.D. In accordance with CAS standard operating procedures, a Method Reporting Limit (MRL) check standard containing the analyte of concern was analyzed each day of analysis. The MRL check standard verified 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 the data quality was not significantly affected. No further corrective action was appropriate.

Lab Control Sample Exceptions:

The advisory criterion was exceeded for Chloroethane in Laboratory Control Sample (LCS) KWG1205937-3 and KWG1205937-4. 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.

Approved by _____

Emw Date 7/5/12

The control criteria were exceeded for 4-Bromofluorobenzene in LCS KWG1205973-3 and KWG1205973-4. The associated matrix spike recoveries of target compounds were in control, indicating the analysis was in control. The surrogate outlier was flagged accordingly. No further corrective action was appropriate.

Surrogate Exceptions:

The upper control criterion was exceeded for 4-Bromofluorobenzene in sample Dup at 128% (limit 127%). M,p-Xylenes were detected in the sample. The error associated with an elevated recovery equates to a slight high bias. The results are reported as insufficient hold time remained for reanalysis.

Approved by _____

EMW

Date

7/5/12

1317 South 13th Ave, Kelso, WA 98626 | 360.577.7222 | 800.695.7222 | 360.636.1068 (fax)

PAGE OF COC #

PROJECT NAME	PROJECT NUMBER	PROJECT MANAGER	COMPANY ADDRESS	CITY/STATE/ZIP	E-MAIL ADDRESS	PHONE #	FAX #	SAMPLER'S SIGNATURE	SAMPLE ID	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS		REMARKS
														Semivolatiles	Volatiles	
Sodaboy Rd Landfill RI		Craig Schuyler	4621 S. Custer Ct	Schuyler Environmental Services	Craig@schuylerenviro.com	509 998 3187		Craig Schuyler	SB24@321	5/21/12	11:45		Soil	4	4	
									Dup	5/21/12			S	4	X	
									SB21@271	5/22	10:00		S	4	X	

REPORT REQUIREMENTS

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

II. Report Dup., MS, MSD as required

III. Data Validation Report (includes all raw data)

IV. CLP Deliverable Report

V. EDD

INVOICE INFORMATION

P.O. # _____

Bill To: Schuyler Enviro

TURNAROUND REQUIREMENTS

24 hr. _____ 48 hr. _____

5 Day _____

Standard (10-15 working days)

Provide FAX Results _____

Requested Report Date _____

Sample Shipment contains USDA regulated soil samples (check box if applicable)

SPECIAL INSTRUCTIONS/COMMENTS:

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: _____ (CIRCLE ONE)

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg

RELINQUISHED BY:

Signature: Craig Schuyler Date/Time: 5/22/2012

Printed Name: Craig Schuyler Firm: Schuyler Enviro

RECEIVED BY:

Signature: Edd Ex Date/Time: _____

Printed Name: _____ Firm: _____

RELINQUISHED BY:

Signature: _____ Date/Time: _____

Printed Name: _____ Firm: _____

RECEIVED BY:

Signature: [Redacted] Date/Time: 5/23/12 09:45

Printed Name: _____ Firm: _____



PC ED

Cooler Receipt and Preservation Form

Client / Project: Schwyn Service Request K12 4954
 Received: 5/23/12 Opened: 5/23/12 By: aj Unloaded: 5/23/12 By: aj

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 <input checked="" type="radio"/> NA	Tracking Number	NA	Filed
8.9	5.3	912		8426 1130 6502		

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: _____

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Results

Client: Schwyn Environmental Services
Project: Sudbury Road Lanfill RI
Sample Matrix: Soil

Service Request: K1204954

Total Solids

Prep Method: NONE
Analysis Method: 160.3M
Test Notes:

Units: PERCENT
Basis: Wet

Sample Name	Lab Code	Date Collected	Date Received	Date Analyzed	Result	Result Notes
SB24@32'	K1204954-001	05/21/2012	05/23/2012	05/24/2012	84.3	
Dup	K1204954-002	05/21/2012	05/23/2012	05/24/2012	84.0	
SB21@27'	K1204954-003	05/22/2012	05/23/2012	05/24/2012	81.8	

QA/QC Report

Client: Schwyn Environmental Services
Project: Sudbury Road Lanfill RI
Sample Matrix: Soil

Service Request: K1204954
Date Collected: 05/22/2012
Date Received: 05/23/2012
Date Analyzed: 05/24/2012

Duplicate Sample Summary
Total Solids

Prep Method: NONE
Analysis Method: 160.3M
Test Notes:

Units: PERCENT
Basis: Wet

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
SB21@27'	K1204954-003	81.8	81.5	81.7	<1	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: Sudbury Road Lanfill RI
Sample Matrix: Soil

Service Request: K1204954
Date Collected: 05/21/2012
Date Received: 05/23/2012

Volatile Organic Compounds

Sample Name: SB24@32'
Lab Code: K1204954-001
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
Chloromethane	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
Vinyl Chloride	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
Bromomethane	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
Chloroethane	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
Trichlorofluoromethane	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
1,1-Dichloroethene	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
Acetone	ND	U	22	1	06/04/12	06/04/12	KWG1205937	
Iodomethane (Methyl Iodide)†	ND	U	22	1	06/04/12	06/04/12	KWG1205937	
Carbon Disulfide	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
Methylene Chloride	18		11	1	06/04/12	06/04/12	KWG1205937	
Acrylonitrile	ND	U	22	1	06/04/12	06/04/12	KWG1205937	
trans-1,2-Dichloroethene	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
1,1-Dichloroethane	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
Vinyl Acetate	ND	U	22	1	06/04/12	06/04/12	KWG1205937	
cis-1,2-Dichloroethene	11		5.5	1	06/04/12	06/04/12	KWG1205937	
2-Butanone (MEK)	ND	U	22	1	06/04/12	06/04/12	KWG1205937	
Bromochloromethane	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
Chloroform	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
1,1,1-Trichloroethane (TCA)	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
Carbon Tetrachloride	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
Benzene	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
1,2-Dichloroethane (EDC)	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
Trichloroethene (TCE)	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
1,2-Dichloropropane	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
Dibromomethane	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
Bromodichloromethane	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
cis-1,3-Dichloropropene	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
4-Methyl-2-pentanone (MIBK)	ND	U	22	1	06/04/12	06/04/12	KWG1205937	
Toluene	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
trans-1,3-Dichloropropene	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
1,1,2-Trichloroethane	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
Tetrachloroethene (PCE)	7.1		5.5	1	06/04/12	06/04/12	KWG1205937	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Results

Client: Schwyn Environmental Services
Project: Sudbury Road Landfill RI
Sample Matrix: Soil

Service Request: K1204954
Date Collected: 05/21/2012
Date Received: 05/23/2012

Volatile Organic Compounds

Sample Name: SB24@32'
Lab Code: K1204954-001
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	22	1	06/04/12	06/04/12	KWG1205937	
Dibromochloromethane	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
1,2-Dibromoethane (EDB)	ND	U	22	1	06/04/12	06/04/12	KWG1205937	
Chlorobenzene	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
Ethylbenzene	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
1,1,1,2-Tetrachloroethane	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
m,p-Xylenes	7.8		5.5	1	06/04/12	06/04/12	KWG1205937	
o-Xylene	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
Styrene	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
Bromoform	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
cis-1,4-Dichloro-2-butene†	ND	U	22	1	06/04/12	06/04/12	KWG1205937	
1,1,2,2-Tetrachloroethane	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
trans-1,4-Dichloro-2-butene	ND	U	22	1	06/04/12	06/04/12	KWG1205937	
1,2,3-Trichloropropane	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
1,4-Dichlorobenzene	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
1,2-Dichlorobenzene	ND	U	5.5	1	06/04/12	06/04/12	KWG1205937	
1,2-Dibromo-3-chloropropane	ND	U	22	1	06/04/12	06/04/12	KWG1205937	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	113	82-146	06/04/12	Acceptable
Toluene-d8	128	90-142	06/04/12	Acceptable
4-Bromofluorobenzene	125	88-127	06/04/12	Acceptable

† Analyte Comments

Iodomethane (Methyl Iodide) This compound is searched for as a tentatively identified compound.
 cis-1,4-Dichloro-2-butene This compound is searched for as a tentatively identified compound.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: Sudbury Road Lanfill RI
Sample Matrix: Soil

Service Request: K1204954
Date Collected: 05/21/2012
Date Received: 05/23/2012

Volatile Organic Compounds

Sample Name: Dup
Lab Code: K1204954-002
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
Chloromethane	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
Vinyl Chloride	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
Bromomethane	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
Chloroethane	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
Trichlorofluoromethane	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
1,1-Dichloroethene	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
Acetone	ND	U	19	1	06/04/12	06/04/12	KWG1205937	
Iodomethane (Methyl Iodide)†	ND	U	19	1	06/04/12	06/04/12	KWG1205937	
Carbon Disulfide	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
Methylene Chloride	22		9.4	1	06/04/12	06/04/12	KWG1205937	
Acrylonitrile	ND	U	19	1	06/04/12	06/04/12	KWG1205937	
trans-1,2-Dichloroethene	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
1,1-Dichloroethane	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
Vinyl Acetate	ND	U	19	1	06/04/12	06/04/12	KWG1205937	
cis-1,2-Dichloroethene	15		4.7	1	06/04/12	06/04/12	KWG1205937	
2-Butanone (MEK)	ND	U	19	1	06/04/12	06/04/12	KWG1205937	
Bromochloromethane	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
Chloroform	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
1,1,1-Trichloroethane (TCA)	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
Carbon Tetrachloride	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
Benzene	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
1,2-Dichloroethane (EDC)	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
Trichloroethene (TCE)	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
1,2-Dichloropropane	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
Dibromomethane	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
Bromodichloromethane	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
cis-1,3-Dichloropropene	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
4-Methyl-2-pentanone (MIBK)	ND	U	19	1	06/04/12	06/04/12	KWG1205937	
Toluene	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
trans-1,3-Dichloropropene	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
1,1,2-Trichloroethane	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
Tetrachloroethene (PCE)	10		4.7	1	06/04/12	06/04/12	KWG1205937	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: Sudbury Road Lanfill RI
Sample Matrix: Soil

Service Request: K1204954
Date Collected: 05/21/2012
Date Received: 05/23/2012

Volatile Organic Compounds

Sample Name: Dup
Lab Code: K1204954-002
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	19	1	06/04/12	06/04/12	KWG1205937	
Dibromochloromethane	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
1,2-Dibromoethane (EDB)	ND	U	19	1	06/04/12	06/04/12	KWG1205937	
Chlorobenzene	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
Ethylbenzene	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
1,1,1,2-Tetrachloroethane	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
m,p-Xylenes	11		4.7	1	06/04/12	06/04/12	KWG1205937	
o-Xylene	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
Styrene	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
Bromoform	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
cis-1,4-Dichloro-2-butene†	ND	U	19	1	06/04/12	06/04/12	KWG1205937	
1,1,2,2-Tetrachloroethane	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
trans-1,4-Dichloro-2-butene	ND	U	19	1	06/04/12	06/04/12	KWG1205937	
1,2,3-Trichloropropane	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
1,4-Dichlorobenzene	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
1,2-Dichlorobenzene	ND	U	4.7	1	06/04/12	06/04/12	KWG1205937	
1,2-Dibromo-3-chloropropane	ND	U	19	1	06/04/12	06/04/12	KWG1205937	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	115	82-146	06/04/12	Acceptable
Toluene-d8	131	90-142	06/04/12	Acceptable
4-Bromofluorobenzene	128	88-127	06/04/12	Outside Control Limits

† Analyte Comments

Iodomethane (Methyl Iodide) This compound is searched for as a tentatively identified compound.
 cis-1,4-Dichloro-2-butene This compound is searched for as a tentatively identified compound.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: Sudbury Road Landfill RI
Sample Matrix: Soil

Service Request: K1204954
Date Collected: 05/22/2012
Date Received: 05/23/2012

Volatile Organic Compounds

Sample Name: SB21@27'
Lab Code: K1204954-003
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Chloromethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Vinyl Chloride	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Bromomethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Chloroethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Trichlorofluoromethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,1-Dichloroethene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Acetone	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
Iodomethane (Methyl Iodide)†	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
Carbon Disulfide	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Methylene Chloride	11		10	1	06/04/12	06/04/12	KWG1205937	
Acrylonitrile	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
trans-1,2-Dichloroethene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,1-Dichloroethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Vinyl Acetate	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
cis-1,2-Dichloroethene	22		5.0	1	06/04/12	06/04/12	KWG1205937	
2-Butanone (MEK)	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
Bromochloromethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Chloroform	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Carbon Tetrachloride	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Benzene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,2-Dichloroethane (EDC)	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Trichloroethene (TCE)	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,2-Dichloropropane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Dibromomethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Bromodichloromethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
cis-1,3-Dichloropropene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
Toluene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
trans-1,3-Dichloropropene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,1,2-Trichloroethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Tetrachloroethene (PCE)	5.9		5.0	1	06/04/12	06/04/12	KWG1205937	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: Sudbury Road Landfill RI
Sample Matrix: Soil

Service Request: K1204954
Date Collected: 05/22/2012
Date Received: 05/23/2012

Volatile Organic Compounds

Sample Name: SB21@27'
Lab Code: K1204954-003
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
Dibromochloromethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,2-Dibromoethane (EDB)	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
Chlorobenzene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Ethylbenzene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,1,1,2-Tetrachloroethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
m,p-Xylenes	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
o-Xylene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Styrene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Bromoform	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
cis-1,4-Dichloro-2-butene†	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
trans-1,4-Dichloro-2-butene	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
1,2,3-Trichloropropane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,4-Dichlorobenzene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,2-Dichlorobenzene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,2-Dibromo-3-chloropropane	ND	U	20	1	06/04/12	06/04/12	KWG1205937	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	112	82-146	06/04/12	Acceptable
Toluene-d8	131	90-142	06/04/12	Acceptable
4-Bromofluorobenzene	124	88-127	06/04/12	Acceptable

† Analyte Comments

Iodomethane (Methyl Iodide) This compound is searched for as a tentatively identified compound.
 cis-1,4-Dichloro-2-butene This compound is searched for as a tentatively identified compound.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: Sudbury Road Lanfill RI
Sample Matrix: Soil

Service Request: K1204954
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1205937-5
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Chloromethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Vinyl Chloride	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Bromomethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Chloroethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Trichlorofluoromethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,1-Dichloroethene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Acetone	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
Iodomethane (Methyl Iodide)†	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
Carbon Disulfide	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Methylene Chloride	ND	U	10	1	06/04/12	06/04/12	KWG1205937	
Acrylonitrile	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
trans-1,2-Dichloroethene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,1-Dichloroethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Vinyl Acetate	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
cis-1,2-Dichloroethene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
2-Butanone (MEK)	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
Bromochloromethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Chloroform	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Carbon Tetrachloride	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Benzene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,2-Dichloroethane (EDC)	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Trichloroethene (TCE)	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,2-Dichloropropane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Dibromomethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Bromodichloromethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
cis-1,3-Dichloropropene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
Toluene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
trans-1,3-Dichloropropene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,1,2-Trichloroethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Tetrachloroethene (PCE)	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: Sudbury Road Lanfill RI
Sample Matrix: Soil

Service Request: K1204954
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1205937-5
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
Dibromochloromethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,2-Dibromoethane (EDB)	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
Chlorobenzene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Ethylbenzene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,1,1,2-Tetrachloroethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
m,p-Xylenes	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
o-Xylene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Styrene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Bromoform	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
cis-1,4-Dichloro-2-butene†	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
trans-1,4-Dichloro-2-butene	ND	U	20	1	06/04/12	06/04/12	KWG1205937	
1,2,3-Trichloropropane	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,4-Dichlorobenzene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,2-Dichlorobenzene	ND	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,2-Dibromo-3-chloropropane	ND	U	20	1	06/04/12	06/04/12	KWG1205937	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	112	82-146	06/04/12	Acceptable
Toluene-d8	130	90-142	06/04/12	Acceptable
4-Bromofluorobenzene	125	88-127	06/04/12	Acceptable

† Analyte Comments

Iodomethane (Methyl Iodide) This compound is searched for as a tentatively identified compound.
 cis-1,4-Dichloro-2-butene This compound is searched for as a tentatively identified compound.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Schwyn Environmental Services
Project: Sudbury Road Lanfill RI
Sample Matrix: Soil

Service Request: K1204954

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: PERCENT
Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>
SB24@32'	K1204954-001	113	128	125
Dup	K1204954-002	115	131	128 *
SB21@27'	K1204954-003	112	131	124
Method Blank	KWG1205937-5	112	130	125
Lab Control Sample	KWG1205937-3	121	134	128 *
Duplicate Lab Control Sample	KWG1205937-4	120	134	128 *

Surrogate Recovery Control Limits (%)

Sur1 = Dibromofluoromethane	82-146
Sur2 = Toluene-d8	90-142
Sur3 = 4-Bromofluorobenzene	88-127

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: Schwyn Environmental Services
Project: Sudbury Road Lanfill RI
Sample Matrix: Soil

Service Request: K1204954
Date Extracted: 06/04/2012
Date Analyzed: 06/04/2012

**Lab Control Spike/Duplicate Lab Control Spike Summary
 Volatile Organic Compounds**

Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG1205937

Analyte Name	Lab Control Sample KWG1205937-3 Lab Control Spike			Duplicate Lab Control Sample KWG1205937-4 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Expected	%Rec	Result	Expected	%Rec			
Dichlorodifluoromethane	45.7	50.0	91	43.8	50.0	88	38-160	4	40
Chloromethane	53.5	50.0	107	50.9	50.0	102	37-146	5	40
Vinyl Chloride	48.2	50.0	96	46.2	50.0	92	54-127	4	40
Bromomethane	39.4	50.0	79	39.6	50.0	79	22-180	1	40
Chloroethane	62.0	50.0	124 *	62.0	50.0	124 *	51-122	0	40
Trichlorofluoromethane	48.3	50.0	97	47.1	50.0	94	51-140	2	40
1,1-Dichloroethene	60.8	50.0	122	57.9	50.0	116	64-152	5	40
Acetone	153	250	61	170	250	68	32-135	11	40
Carbon Disulfide	98.2	100	98	95.9	100	96	55-141	2	40
Methylene Chloride	46.1	50.0	92	46.7	50.0	93	65-122	1	40
Acrylonitrile	94.8	100	95	99.9	100	100	18-179	5	40
trans-1,2-Dichloroethene	51.7	50.0	103	51.4	50.0	103	63-127	1	40
1,1-Dichloroethane	49.6	50.0	99	49.6	50.0	99	59-137	0	40
Vinyl Acetate	168	180	94	176	180	98	45-158	4	40
cis-1,2-Dichloroethene	41.6	50.0	83	41.2	50.0	82	62-138	1	40
2-Butanone (MEK)	155	250	62	169	250	68	54-116	9	40
Bromochloromethane	47.8	50.0	96	49.0	50.0	98	65-131	2	40
Chloroform	48.9	50.0	98	49.1	50.0	98	61-137	1	40
1,1,1-Trichloroethane (TCA)	55.7	50.0	111	54.3	50.0	109	59-146	2	40
Carbon Tetrachloride	59.6	50.0	119	57.0	50.0	114	51-135	5	40
Benzene	50.6	50.0	101	50.1	50.0	100	68-122	1	40
1,2-Dichloroethane (EDC)	47.8	50.0	96	48.5	50.0	97	65-121	1	40
Trichloroethene (TCE)	51.4	50.0	103	50.3	50.0	101	67-126	2	40
1,2-Dichloropropane	47.7	50.0	95	46.8	50.0	94	71-121	2	40
Dibromomethane	45.4	50.0	91	44.8	50.0	90	68-125	1	40
Bromodichloromethane	46.4	50.0	93	46.5	50.0	93	61-143	0	40
cis-1,3-Dichloropropene	48.2	50.0	96	47.5	50.0	95	58-138	2	40
4-Methyl-2-pentanone (MIBK)	213	250	85	229	250	92	69-126	7	40
Toluene	49.1	50.0	98	49.0	50.0	98	75-117	0	40
trans-1,3-Dichloropropene	46.8	50.0	94	46.4	50.0	93	63-121	1	40
1,1,2-Trichloroethane	46.0	50.0	92	47.2	50.0	94	72-118	2	40
Tetrachloroethene (PCE)	59.2	50.0	118	58.9	50.0	118	66-126	1	40
2-Hexanone	214	250	86	247	250	99	67-121	14	40
Dibromochloromethane	44.5	50.0	89	45.6	50.0	91	69-120	3	40
1,2-Dibromoethane (EDB)	46.5	50.0	93	48.4	50.0	97	71-116	4	40

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

QA/QC Report

Client: Schwyn Environmental Services
Project: Sudbury Road Lanfill RI
Sample Matrix: Soil

Service Request: K1204954
Date Extracted: 06/04/2012
Date Analyzed: 06/04/2012

**Lab Control Spike/Duplicate Lab Control Spike Summary
 Volatile Organic Compounds**

Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG1205937

Analyte Name	Lab Control Sample KWG1205937-3 Lab Control Spike			Duplicate Lab Control Sample KWG1205937-4 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Expected	%Rec	Result	Expected	%Rec			
Chlorobenzene	51.8	50.0	104	51.3	50.0	103	70-116	1	40
Ethylbenzene	54.3	50.0	109	52.8	50.0	106	70-118	3	40
1,1,1,2-Tetrachloroethane	49.7	50.0	99	49.0	50.0	98	71-119	1	40
m,p-Xylenes	110	100	110	108	100	108	69-127	1	40
o-Xylene	53.5	50.0	107	52.9	50.0	106	69-124	1	40
Styrene	48.1	50.0	96	48.5	50.0	97	62-135	1	40
Bromoform	39.1	50.0	78	40.7	50.0	81	62-134	4	40
1,1,2,2-Tetrachloroethane	38.8	50.0	78	40.5	50.0	81	60-128	4	40
trans-1,4-Dichloro-2-butene	66.5	80.0	83	68.9	80.0	86	26-204	4	40
1,2,3-Trichloropropane	38.5	50.0	77	40.0	50.0	80	53-134	4	40
1,4-Dichlorobenzene	49.3	50.0	99	48.0	50.0	96	69-125	3	40
1,2-Dichlorobenzene	45.3	50.0	91	46.0	50.0	92	67-124	2	40
1,2-Dibromo-3-chloropropane	39.3	50.0	79	40.3	50.0	81	55-127	2	40

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.



September 25, 2012

Analytical Report for Service Request No: K1208590

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

RE: City of Walla Walla Sudbury Road Landfill Remedial

Dear Craig:

Enclosed are the results of the samples submitted to our laboratory on August 30, 2012. For your reference, these analyses have been assigned our service request number K1208590.

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. 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 3291. You may also contact me via Email at Ed.Wallace@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Ed Wallace
Project Manager

EW/jw

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Columbia Analytical Services, Inc.

Part of the ALS Group A Campbell Brothers Limited Company

Environmental 

www.caslab.com ■ 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**

Agency	Web Site	Number
Alaska DEC UST	http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2286
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L12-28
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Georgia DNR	http://www.gaepd.org/Documents/techguide_pcb.html#cel	881
Hawaii DOH	Not available	-
Idaho DHW	http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx	-
Indiana DOH	http://www.in.gov/isdh/24859.htm	C-WA-01
ISO 17025	http://www.pjlabs.com/	L12-27
Louisiana DEQ	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	3016
Louisiana DHH	Not available	LA110003
Maine DHS	Not available	WA0035
Michigan DEQ	http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html	9949
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-368
Montana DPHHS	http://www.dphhs.mt.gov/publichealth/	CERT0047
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA35
New Jersey DEP	http://www.nj.gov/dep/oqa/	WA005
New Mexico ED	http://www.nmenv.state.nm.us/dwb/Index.htm	-
North Carolina DWQ	http://www.dwqlab.org/	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA200001
South Carolina DHEC	http://www.scdhec.gov/environment/envserv/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	4704427-08-TX
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C1203
Wisconsin DNR	http://dnr.wi.gov/	998386840
Wyoming (EPA Region 8)	http://www.epa.gov/region8/water/dwhome/wyomingdi.html	-
Kelso Laboratory Website	www.caslab.com	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 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
Project: Sudbury Road Landfill RI
Sample Matrix: Soil

Service Request No.: K1208590
Date Received: 8/30/12

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: Laboratory Duplicate (DUP), Matrix Spike (MS), and Laboratory Control Sample (LCS).

Sample Receipt

Two soil samples and one trip blank were received for analysis at ALS Environmental on 8/30/12. 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.

Volatile Organic Compounds by EPA Method 8260

Calibration Verification Exceptions:

The following analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS24\0907F004.D: Carbon Disulfide. In accordance with the EPA Method 8260C, 80% or more of the CCV analytes must have passed within 20% of the true value. The remaining analytes are allowed a 40% difference as per the CAS SOP. The CCV met these criteria. No further corrective action was required.

Matrix Spike Recovery Exceptions:

The matrix spike recovery of 1,2,3-Trichloropropane and 1,2-Dichlorobenzene for sample Batch QC was outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicated the analytical batch was in control. The matrix spike outlier suggested a potential high bias in this matrix. No further corrective action was appropriate.

Relative Percent Difference Exceptions:

The Relative Percent Difference (RPD) for 2-Hexanone and Naphthalene in the replicate matrix spike analyses of Batch QC was outside control criteria. All spike recoveries in the MS, DMS, and associated Laboratory Control Sample (LCS) were within acceptance limits, indicating the analytical batch was in control. No further corrective action was appropriate.

Approved by



Columbia Analytical Services

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(360) 577-7222 FAX (360) 636-1068

SR# 11208890
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: <i>[Signature]</i>					Number of Containers	Analysis Requested						
Sample I.D.	Date	Time	LAB ID	Matrix		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)]	Dissolved Metals (see below)	MS/MSD	REMARKS	
SB-23-29.5-30	8/28/12	1420		Soil	4	X						
SB-26-28.5-29	8/29/12	1250		Soil	4	X						
<i>[Large diagonal line across the table]</i>												
JRNAROUND REQUIREMENTS <input type="checkbox"/> 24 hr <input type="checkbox"/> 48 hr <input type="checkbox"/> 5 day <input checked="" type="checkbox"/> Standard (21 days) <input type="checkbox"/> Provide FAX Preliminary Results Requested Report Date:					REPORT REQUIREMENTS <input type="checkbox"/> I. Routine Report: Results, Method Blank, Surrogate, as required <input checked="" type="checkbox"/> II. Report Dup., MS, MSD as required <input type="checkbox"/> III. Data Validation Report (includes raw data) <input type="checkbox"/> IV. CLP Deliverable Report <input checked="" type="checkbox"/> V. EDD					Dissolved Metals: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Se, Ag, Ti, Sn, V, and Zn by USEPA Method 6010C		
Invoice Information P.O. # _____ Bill to: Schwyn Environmental Services					<i>[Handwritten: received]</i>							
RELINQUISHED BY: Signature: <i>[Signature]</i> Printed Name: Rachel Elana Ramirez Firm: Schwyn Environmental Services Date/Time: 8/29/12 1325					RECEIVED BY: Signature: <i>[Signature]</i> Printed Name: Craig Schwyn Firm: Schwyn Environmental Svc. Date/Time: 8/29/12 1325					RELINQUISHED BY: Signature: <i>[Signature]</i> Printed Name: Craig Schwyn Firm: Schwyn Environmental Svc. Date/Time: 8/29/12		
					RECEIVED BY: Signature: <i>[Signature]</i> Printed Name: Les Kennedy Firm: ACS Date/Time: 8/30/12 0920							



PC Ed

Cooler Receipt and Preservation Form

Client / Project: Watta Watta Schwyzn Service Request K12 8590

Received: 8/30/12 Opened: 8/30/12 By: UM Unloaded: 8/30/12 By: UM

- 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
1.4	1.4	282	<u>NA</u>	8427 1130 6524		<input checked="" type="checkbox"/>

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

SHORT HOLD TIME

Notes, Discrepancies, & Resolutions: Received 2 trip blanks not on coc.
** Did not note it at the time and by the time it was noticed not noticed
we could not find the cooler to see if any coc seals were placed there.

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Results

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Soil

Service Request: K1208590

Total Solids

Prep Method: NONE
Analysis Method: 160.3M
Test Notes:

Units: PERCENT
Basis: Wet

Sample Name	Lab Code	Date Collected	Date Received	Date Analyzed	Result	Result Notes
SB-23-29.5-30	K1208590-001	08/28/2012	08/30/2012	08/31/2012	81.2	
SB-26-28.5-29	K1208590-002	08/29/2012	08/30/2012	08/31/2012	81.3	

QA/QC Report

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Soil

Service Request: K1208590
Date Collected: 08/28/2012
Date Received: 08/30/2012
Date Analyzed: 08/31/2012

Duplicate Sample Summary
Total Solids

Prep Method: NONE
Analysis Method: 160.3M
Test Notes:

Units: PERCENT
Basis: Wet

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
SB-23-29.5-30	K1208590-001	81.2	81.3	81.3	<1	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Results

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Water

Service Request: K1208590
Date Collected: 08/28/2012
Date Received: 08/30/2012

Volatile Organic Compounds

Sample Name: Trip Blank
Lab Code: K1208590-003
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	09/07/12	09/07/12	KWG1210360	
Chloromethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Vinyl Chloride	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Bromomethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Chloroethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Trichlorofluoromethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,1-Dichloroethene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Acetone	ND	U	20	1	09/07/12	09/07/12	KWG1210360	
Carbon Disulfide	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	*
Methylene Chloride	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
trans-1,2-Dichloroethene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,1-Dichloroethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
2,2-Dichloropropane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
cis-1,2-Dichloroethene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
2-Butanone (MEK)	ND	U	20	1	09/07/12	09/07/12	KWG1210360	
Bromochloromethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Chloroform	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Carbon Tetrachloride	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,1-Dichloropropene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Benzene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Trichloroethene (TCE)	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,2-Dichloropropane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Dibromomethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Bromodichloromethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
cis-1,3-Dichloropropene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	09/07/12	09/07/12	KWG1210360	
Toluene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
trans-1,3-Dichloropropene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,1,2-Trichloroethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Tetrachloroethene (PCE)	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
2-Hexanone	ND	U	20	1	09/07/12	09/07/12	KWG1210360	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Water

Service Request: K1208590
Date Collected: 08/28/2012
Date Received: 08/30/2012

Volatile Organic Compounds

Sample Name: Trip Blank
Lab Code: K1208590-003
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
1,3-Dichloropropane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Dibromochloromethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,2-Dibromoethane (EDB)	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
Chlorobenzene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Ethylbenzene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
m,p-Xylenes	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
o-Xylene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Styrene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Bromoform	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Isopropylbenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Bromobenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
n-Propylbenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
1,2,3-Trichloropropane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
2-Chlorotoluene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
1,3,5-Trimethylbenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
4-Chlorotoluene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
tert-Butylbenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
1,2,4-Trimethylbenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
sec-Butylbenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
4-Isopropyltoluene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
1,3-Dichlorobenzene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,4-Dichlorobenzene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
n-Butylbenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
1,2-Dichlorobenzene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
1,2,4-Trichlorobenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
Hexachlorobutadiene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
Naphthalene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
1,2,3-Trichlorobenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	

* See Case Narrative

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Water

Service Request: K1208590
Date Collected: 08/28/2012
Date Received: 08/30/2012

Volatile Organic Compounds

Sample Name: Trip Blank
Lab Code: K1208590-003

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	103	73-122	09/07/12	Acceptable
Toluene-d8	104	65-144	09/07/12	Acceptable
4-Bromofluorobenzene	98	68-117	09/07/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Water

Service Request: K1208590
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1210360-4
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	09/07/12	09/07/12	KWG1210360	
Chloromethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Vinyl Chloride	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Bromomethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Chloroethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Trichlorofluoromethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,1-Dichloroethene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Acetone	ND	U	20	1	09/07/12	09/07/12	KWG1210360	
Carbon Disulfide	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	*
Methylene Chloride	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
trans-1,2-Dichloroethene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,1-Dichloroethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
2,2-Dichloropropane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
cis-1,2-Dichloroethene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
2-Butanone (MEK)	ND	U	20	1	09/07/12	09/07/12	KWG1210360	
Bromochloromethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Chloroform	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Carbon Tetrachloride	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,1-Dichloropropene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Benzene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Trichloroethene (TCE)	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,2-Dichloropropane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Dibromomethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Bromodichloromethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
cis-1,3-Dichloropropene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	09/07/12	09/07/12	KWG1210360	
Toluene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
trans-1,3-Dichloropropene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,1,2-Trichloroethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Tetrachloroethene (PCE)	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
2-Hexanone	ND	U	20	1	09/07/12	09/07/12	KWG1210360	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Water

Service Request: K1208590
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1210360-4
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
1,3-Dichloropropane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Dibromochloromethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,2-Dibromoethane (EDB)	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
Chlorobenzene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Ethylbenzene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
m,p-Xylenes	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
o-Xylene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Styrene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Bromoform	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Isopropylbenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
Bromobenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
n-Propylbenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
1,2,3-Trichloropropane	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
2-Chlorotoluene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
1,3,5-Trimethylbenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
4-Chlorotoluene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
tert-Butylbenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
1,2,4-Trimethylbenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
sec-Butylbenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
4-Isopropyltoluene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
1,3-Dichlorobenzene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,4-Dichlorobenzene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
n-Butylbenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
1,2-Dichlorobenzene	ND	U	0.50	1	09/07/12	09/07/12	KWG1210360	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
1,2,4-Trichlorobenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
Hexachlorobutadiene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
Naphthalene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	
1,2,3-Trichlorobenzene	ND	U	2.0	1	09/07/12	09/07/12	KWG1210360	

* See Case Narrative

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Water

Service Request: K1208590
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1210360-4

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	103	73-122	09/07/12	Acceptable
Toluene-d8	106	65-144	09/07/12	Acceptable
4-Bromofluorobenzene	99	68-117	09/07/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Soil

Service Request: K1208590
Date Collected: 08/28/2012
Date Received: 08/30/2012

Volatile Organic Compounds

Sample Name: SB-23-29.5-30
Lab Code: K1208590-001
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Chloromethane	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Vinyl Chloride	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Bromomethane	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Chloroethane	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Trichlorofluoromethane	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
1,1-Dichloroethene	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Acetone	ND	U	19	1	09/04/12	09/04/12	KWG1210161	
Carbon Disulfide	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	*
Methylene Chloride	ND	U	9.5	1	09/04/12	09/04/12	KWG1210161	
trans-1,2-Dichloroethene	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
1,1-Dichloroethane	5.1		4.8	1	09/04/12	09/04/12	KWG1210161	
2,2-Dichloropropane	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
cis-1,2-Dichloroethene	50		4.8	1	09/04/12	09/04/12	KWG1210161	
2-Butanone (MEK)	ND	U	19	1	09/04/12	09/04/12	KWG1210161	
Bromochloromethane	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Chloroform	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
1,1,1-Trichloroethane (TCA)	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Carbon Tetrachloride	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
1,1-Dichloropropene	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Benzene	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
1,2-Dichloroethane (EDC)	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Trichloroethene (TCE)	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
1,2-Dichloropropane	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Dibromomethane	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Bromodichloromethane	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
cis-1,3-Dichloropropene	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
4-Methyl-2-pentanone (MIBK)	ND	U	19	1	09/04/12	09/04/12	KWG1210161	
Toluene	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
trans-1,3-Dichloropropene	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
1,1,2-Trichloroethane	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Tetrachloroethene (PCE)	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
2-Hexanone	ND	U	19	1	09/04/12	09/04/12	KWG1210161	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Soil

Service Request: K1208590
Date Collected: 08/28/2012
Date Received: 08/30/2012

Volatile Organic Compounds

Sample Name: SB-23-29.5-30
Lab Code: K1208590-001
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Dibromochloromethane	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
1,2-Dibromoethane (EDB)	ND	U	19	1	09/04/12	09/04/12	KWG1210161	
Chlorobenzene	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Ethylbenzene	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
1,1,1,2-Tetrachloroethane	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
m,p-Xylenes	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
o-Xylene	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Styrene	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Bromoform	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Isopropylbenzene	ND	U	19	1	09/04/12	09/04/12	KWG1210161	
1,1,2,2-Tetrachloroethane	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
Bromobenzene	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
n-Propylbenzene	ND	U	19	1	09/04/12	09/04/12	KWG1210161	
1,2,3-Trichloropropane	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
2-Chlorotoluene	ND	U	19	1	09/04/12	09/04/12	KWG1210161	
1,3,5-Trimethylbenzene	ND	U	19	1	09/04/12	09/04/12	KWG1210161	
4-Chlorotoluene	ND	U	19	1	09/04/12	09/04/12	KWG1210161	
tert-Butylbenzene	ND	U	19	1	09/04/12	09/04/12	KWG1210161	
1,2,4-Trimethylbenzene	ND	U	19	1	09/04/12	09/04/12	KWG1210161	
sec-Butylbenzene	ND	U	19	1	09/04/12	09/04/12	KWG1210161	
4-Isopropyltoluene	ND	U	19	1	09/04/12	09/04/12	KWG1210161	
1,3-Dichlorobenzene	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
1,4-Dichlorobenzene	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
n-Butylbenzene	ND	U	19	1	09/04/12	09/04/12	KWG1210161	
1,2-Dichlorobenzene	ND	U	4.8	1	09/04/12	09/04/12	KWG1210161	
1,2-Dibromo-3-chloropropane	ND	U	19	1	09/04/12	09/04/12	KWG1210161	
1,2,4-Trichlorobenzene	ND	U	19	1	09/04/12	09/04/12	KWG1210161	
Hexachlorobutadiene	ND	U	19	1	09/04/12	09/04/12	KWG1210161	
Naphthalene	ND	U	19	1	09/04/12	09/04/12	KWG1210161	
1,2,3-Trichlorobenzene	ND	U	19	1	09/04/12	09/04/12	KWG1210161	

* See Case Narrative

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Soil

Service Request: K1208590
Date Collected: 08/28/2012
Date Received: 08/30/2012

Volatile Organic Compounds

Sample Name: SB-23-29.5-30
Lab Code: K1208590-001

Units: ug/Kg
Basis: Dry

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	108	82-146	09/04/12	Acceptable
Toluene-d8	116	90-142	09/04/12	Acceptable
4-Bromofluorobenzene	107	88-127	09/04/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Soil

Service Request: K1208590
Date Collected: 08/29/2012
Date Received: 08/30/2012

Volatile Organic Compounds

Sample Name: SB-26-28.5-29
Lab Code: K1208590-002
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Chloromethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Vinyl Chloride	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Bromomethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Chloroethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Trichlorofluoromethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,1-Dichloroethene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Acetone	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
Carbon Disulfide	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	*
Methylene Chloride	ND	U	9.9	1	09/04/12	09/04/12	KWG1210161	
trans-1,2-Dichloroethene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,1-Dichloroethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
2,2-Dichloropropane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
cis-1,2-Dichloroethene	14		5.0	1	09/04/12	09/04/12	KWG1210161	
2-Butanone (MEK)	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
Bromochloromethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Chloroform	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Carbon Tetrachloride	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,1-Dichloropropene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Benzene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,2-Dichloroethane (EDC)	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Trichloroethene (TCE)	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,2-Dichloropropane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Dibromomethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Bromodichloromethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
cis-1,3-Dichloropropene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
Toluene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
trans-1,3-Dichloropropene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,1,2-Trichloroethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Tetrachloroethene (PCE)	5.3		5.0	1	09/04/12	09/04/12	KWG1210161	
2-Hexanone	ND	U	20	1	09/04/12	09/04/12	KWG1210161	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Soil

Service Request: K1208590
Date Collected: 08/29/2012
Date Received: 08/30/2012

Volatile Organic Compounds

Sample Name: SB-26-28.5-29
Lab Code: K1208590-002
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Dibromochloromethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,2-Dibromoethane (EDB)	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
Chlorobenzene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Ethylbenzene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,1,1,2-Tetrachloroethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
m,p-Xylenes	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
o-Xylene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Styrene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Bromoform	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Isopropylbenzene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Bromobenzene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
n-Propylbenzene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
1,2,3-Trichloropropane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
2-Chlorotoluene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
1,3,5-Trimethylbenzene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
4-Chlorotoluene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
tert-Butylbenzene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
1,2,4-Trimethylbenzene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
sec-Butylbenzene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
4-Isopropyltoluene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
1,3-Dichlorobenzene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,4-Dichlorobenzene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
n-Butylbenzene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
1,2-Dichlorobenzene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,2-Dibromo-3-chloropropane	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
1,2,4-Trichlorobenzene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
Hexachlorobutadiene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
Naphthalene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
1,2,3-Trichlorobenzene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	

* See Case Narrative

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Soil

Service Request: K1208590
Date Collected: 08/29/2012
Date Received: 08/30/2012

Volatile Organic Compounds

Sample Name: SB-26-28.5-29
Lab Code: K1208590-002

Units: ug/Kg
Basis: Dry

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	109	82-146	09/04/12	Acceptable
Toluene-d8	115	90-142	09/04/12	Acceptable
4-Bromofluorobenzene	107	88-127	09/04/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Soil

Service Request: K1208590
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1210161-5
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Chloromethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Vinyl Chloride	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Bromomethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Chloroethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Trichlorofluoromethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,1-Dichloroethene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Acetone	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
Carbon Disulfide	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	*
Methylene Chloride	ND	U	10	1	09/04/12	09/04/12	KWG1210161	
trans-1,2-Dichloroethene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,1-Dichloroethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
2,2-Dichloropropane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
cis-1,2-Dichloroethene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
2-Butanone (MEK)	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
Bromochloromethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Chloroform	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Carbon Tetrachloride	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,1-Dichloropropene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Benzene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,2-Dichloroethane (EDC)	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Trichloroethene (TCE)	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,2-Dichloropropane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Dibromomethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Bromodichloromethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
cis-1,3-Dichloropropene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
Toluene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
trans-1,3-Dichloropropene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,1,2-Trichloroethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Tetrachloroethene (PCE)	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
2-Hexanone	ND	U	20	1	09/04/12	09/04/12	KWG1210161	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Soil

Service Request: K1208590
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1210161-5
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Dibromochloromethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,2-Dibromoethane (EDB)	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
Chlorobenzene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Ethylbenzene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,1,1,2-Tetrachloroethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
m,p-Xylenes	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
o-Xylene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Styrene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Bromoform	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Isopropylbenzene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
Bromobenzene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
n-Propylbenzene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
1,2,3-Trichloropropane	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
2-Chlorotoluene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
1,3,5-Trimethylbenzene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
4-Chlorotoluene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
tert-Butylbenzene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
1,2,4-Trimethylbenzene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
sec-Butylbenzene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
4-Isopropyltoluene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
1,3-Dichlorobenzene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,4-Dichlorobenzene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
n-Butylbenzene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
1,2-Dichlorobenzene	ND	U	5.0	1	09/04/12	09/04/12	KWG1210161	
1,2-Dibromo-3-chloropropane	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
1,2,4-Trichlorobenzene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
Hexachlorobutadiene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
Naphthalene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	
1,2,3-Trichlorobenzene	ND	U	20	1	09/04/12	09/04/12	KWG1210161	

* See Case Narrative

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Soil

Service Request: K1208590
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1210161-5

Units: ug/Kg
Basis: Dry

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	107	82-146	09/04/12	Acceptable
Toluene-d8	114	90-142	09/04/12	Acceptable
4-Bromofluorobenzene	107	88-127	09/04/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Water

Service Request: K1208590

**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>
Trip Blank	K1208590-003	103	104	98
Batch QC	K1208694-001	97	100	98
Method Blank	KWG1210360-4	103	106	99
Batch QCMS	KWG1210360-1	102	105	101
Batch QCDMS	KWG1210360-2	103	103	102
Lab Control Sample	KWG1210360-3	105	107	103

Surrogate Recovery Control Limits (%)

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

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: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Soil

Service Request: K1208590

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: PERCENT
Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>
SB-23-29.5-30	K1208590-001	108	116	107
SB-26-28.5-29	K1208590-002	109	115	107
Batch QC	K1208617-001	108	115	108
Method Blank	KWG1210161-5	107	114	107
Batch QCMS	KWG1210161-1	109	122	117
Batch QCDMS	KWG1210161-2	108	124	117
Lab Control Sample	KWG1210161-3	110	118	113
Duplicate Lab Control Sample	KWG1210161-4	112	121	112

Surrogate Recovery Control Limits (%)

Sur1 = Dibromofluoromethane	82-146
Sur2 = Toluene-d8	90-142
Sur3 = 4-Bromofluorobenzene	88-127

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COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Water

Service Request: K1208590
Date Extracted: 09/07/2012
Date Analyzed: 09/07/2012

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name: Batch QC
Lab Code: K1208694-001
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1210360

Analyte Name	Sample Result	Batch QCMS KWG1210360-1 Matrix Spike			Batch QCDMS KWG1210360-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Spike Amount	%Rec	Result	Spike Amount	%Rec			
Vinyl Chloride	1.8	11.9	10.0	101	10.8	10.0	90	49-136	10	30
1,1-Dichloroethene	ND	14.8	10.0	148	13.2	10.0	132	59-171	12	30
Chloroform	ND	13.0	10.0	130	11.9	10.0	119	64-133	9	30
Carbon Tetrachloride	ND	14.2	10.0	142	13.0	10.0	130	53-161	9	30
Benzene	ND	11.2	10.0	112	10.5	10.0	105	63-144	7	30
Trichloroethene (TCE)	ND	13.6	10.0	136	12.2	10.0	122	53-139	10	30
Bromodichloromethane	ND	12.3	10.0	123	11.4	10.0	114	61-134	8	30
Toluene	0.66	11.5	10.0	108	11.7	10.0	110	71-136	2	30
1,1,2-Trichloroethane	ND	11.2	10.0	112	10.4	10.0	104	74-124	7	30
2-Hexanone	ND	55.7	50.0	111	54.8	50.0	110	53-132	2	30
Chlorobenzene	ND	12.6	10.0	126	11.4	10.0	114	69-126	10	30
Ethylbenzene	ND	12.1	10.0	121	11.1	10.0	111	66-136	9	30
1,2,3-Trichloropropane	ND	13.1	10.0	131 *	12.7	10.0	127	71-127	4	30
2-Chlorotoluene	ND	12.8	10.0	128	12.0	10.0	120	55-139	7	30
1,2-Dichlorobenzene	ND	12.4	10.0	124 *	11.5	10.0	115	72-119	7	30
Naphthalene	ND	12.2	10.0	122	10.9	10.0	109	52-147	11	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: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Soil

Service Request: K1208590
Date Extracted: 09/04/2012
Date Analyzed: 09/04/2012

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name: Batch QC
Lab Code: K1208617-001
Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG1210161

Analyte Name	Sample Result	Batch QCMS KWG1210161-1 Matrix Spike			Batch QCDMS KWG1210161-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Spike Amount	%Rec	Result	Spike Amount	%Rec			
Vinyl Chloride	ND	33.8	62.7	54	40.5	63.9	63	31-140	18	40
1,1-Dichloroethene	ND	36.4	62.7	58	44.8	63.9	70	31-153	21	40
Chloroform	ND	33.3	62.7	53	42.0	63.9	66	43-133	23	40
Carbon Tetrachloride	ND	33.7	62.7	54	40.8	63.9	64	10-144	19	40
Benzene	ND	34.7	62.7	55	43.1	63.9	67	30-137	21	40
Trichloroethene (TCE)	23	66.3	62.7	70	91.5	63.9	108	18-145	32	40
Bromodichloromethane	ND	29.9	62.7	48	40.4	63.9	63	14-146	30	40
Toluene	ND	34.3	62.7	55	43.4	63.9	68	24-142	23	40
1,1,2-Trichloroethane	ND	31.6	62.7	50	46.0	63.9	72	35-130	37	40
2-Hexanone	ND	153	313	49	246	320	77	15-162	47 *	40
Chlorobenzene	ND	29.8	62.7	48	39.4	63.9	62	15-124	28	40
Ethylbenzene	ND	32.0	62.7	51	41.3	63.9	65	13-128	25	40
1,2,3-Trichloropropane	ND	30.8	62.7	49	44.7	63.9	70	23-149	37	40
2-Chlorotoluene	ND	30.3	62.7	48	42.3	63.9	66	10-140	33	40
1,2-Dichlorobenzene	ND	22.9	62.7	37	33.8	63.9	53	10-124	38	40
Naphthalene	ND	21.0	62.7	34	33.5	63.9	52	10-127	46 *	40

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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: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Water

Service Request: K1208590
Date Extracted: 09/07/2012
Date Analyzed: 09/07/2012

**Lab Control Spike Summary
 Volatile Organic Compounds**

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1210360

Lab Control Sample
 KWG1210360-3
 Lab Control Spike

Analyte Name	Result	Spike Amount	%Rec	%Rec Limits
Dichlorodifluoromethane	8.01	10.0	80	32-124
Chloromethane	8.17	10.0	82	34-130
Vinyl Chloride	7.64	10.0	76	55-123
Bromomethane	8.53	10.0	85	35-113
Chloroethane	8.96	10.0	90	58-134
Trichlorofluoromethane	8.77	10.0	88	52-141
1,1-Dichloroethene	11.1	10.0	111	66-129
Acetone	53.2	50.0	106	68-135
Carbon Disulfide	16.4	20.0	82	46-144
Methylene Chloride	9.26	10.0	93	71-122
trans-1,2-Dichloroethene	10.1	10.0	101	67-125
1,1-Dichloroethane	9.87	10.0	99	68-132
2,2-Dichloropropane	10.1	10.0	101	37-145
cis-1,2-Dichloroethene	9.51	10.0	95	71-118
2-Butanone (MEK)	44.8	50.0	90	71-149
Bromochloromethane	9.69	10.0	97	75-131
Chloroform	10.2	10.0	102	70-129
1,1,1-Trichloroethane (TCA)	10.9	10.0	109	59-136
Carbon Tetrachloride	10.7	10.0	107	55-140
1,1-Dichloropropene	9.19	10.0	92	59-134
Benzene	8.74	10.0	87	69-124
1,2-Dichloroethane (EDC)	10.1	10.0	101	56-142
Trichloroethene (TCE)	10.3	10.0	103	67-128
1,2-Dichloropropane	8.50	10.0	85	67-126
Dibromomethane	9.30	10.0	93	69-128
Bromodichloromethane	9.60	10.0	96	63-129
cis-1,3-Dichloropropene	8.13	10.0	81	62-132
4-Methyl-2-pentanone (MIBK)	44.3	50.0	89	64-134
Toluene	8.87	10.0	89	69-124
trans-1,3-Dichloropropene	8.55	10.0	86	59-125
1,1,2-Trichloroethane	9.07	10.0	91	74-118
Tetrachloroethene (PCE)	9.99	10.0	100	62-126
2-Hexanone	44.7	50.0	89	59-131
1,3-Dichloropropane	8.78	10.0	88	75-116
Dibromochloromethane	9.08	10.0	91	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: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Water

Service Request: K1208590
Date Extracted: 09/07/2012
Date Analyzed: 09/07/2012

**Lab Control Spike Summary
 Volatile Organic Compounds**

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1210360

Lab Control Sample
 KWG1210360-3
 Lab Control Spike

Analyte Name	Result	Spike Amount	%Rec	%Rec Limits
1,2-Dibromoethane (EDB)	8.94	10.0	89	74-118
Chlorobenzene	9.64	10.0	96	72-116
Ethylbenzene	9.21	10.0	92	67-121
1,1,1,2-Tetrachloroethane	9.63	10.0	96	66-124
m,p-Xylenes	18.5	20.0	93	69-121
o-Xylene	9.32	10.0	93	71-119
Styrene	9.60	10.0	96	74-121
Bromoform	8.36	10.0	84	52-144
Isopropylbenzene	9.27	10.0	93	67-129
1,1,2,2-Tetrachloroethane	7.77	10.0	78	70-127
Bromobenzene	9.62	10.0	96	72-116
n-Propylbenzene	9.45	10.0	95	61-124
1,2,3-Trichloropropane	8.78	10.0	88	69-123
2-Chlorotoluene	9.57	10.0	96	55-131
1,3,5-Trimethylbenzene	9.65	10.0	97	62-126
4-Chlorotoluene	9.40	10.0	94	66-121
tert-Butylbenzene	9.79	10.0	98	61-127
1,2,4-Trimethylbenzene	9.22	10.0	92	63-122
sec-Butylbenzene	9.62	10.0	96	59-128
4-Isopropyltoluene	10.2	10.0	102	61-128
1,3-Dichlorobenzene	9.74	10.0	97	70-116
1,4-Dichlorobenzene	9.38	10.0	94	73-115
n-Butylbenzene	9.84	10.0	98	55-130
1,2-Dichlorobenzene	9.39	10.0	94	72-115
1,2-Dibromo-3-chloropropane	7.30	10.0	73	55-132
1,2,4-Trichlorobenzene	10.2	10.0	102	58-126
Hexachlorobutadiene	10.9	10.0	109	57-119
Naphthalene	9.87	10.0	99	64-126
1,2,3-Trichlorobenzene	8.39	10.0	84	68-120

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COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Soil

Service Request: K1208590
Date Extracted: 09/04/2012
Date Analyzed: 09/04/2012

Lab Control Spike/Duplicate Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG1210161

Analyte Name	Lab Control Sample KWG1210161-3 Lab Control Spike			Duplicate Lab Control Sample KWG1210161-4 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Spike Amount	%Rec	Result	Spike Amount	%Rec			
Dichlorodifluoromethane	35.4	50.0	71	35.4	50.0	71	38-160	0	40
Chloromethane	44.2	50.0	88	45.1	50.0	90	37-146	2	40
Vinyl Chloride	39.9	50.0	80	39.8	50.0	80	54-127	0	40
Bromomethane	40.4	50.0	81	42.1	50.0	84	22-180	4	40
Chloroethane	45.9	50.0	92	46.3	50.0	93	51-122	1	40
Trichlorofluoromethane	35.4	50.0	71	36.3	50.0	73	51-140	2	40
1,1-Dichloroethene	44.9	50.0	90	44.9	50.0	90	64-152	0	40
Acetone	189	250	75	207	250	83	32-135	9	40
Carbon Disulfide	95.9	100	96	95.1	100	95	55-141	1	40
Methylene Chloride	40.4	50.0	81	41.5	50.0	83	65-122	3	40
trans-1,2-Dichloroethene	43.0	50.0	86	43.7	50.0	87	63-127	2	40
1,1-Dichloroethane	44.4	50.0	89	44.9	50.0	90	59-137	1	40
2,2-Dichloropropane	42.1	50.0	84	42.0	50.0	84	50-138	0	40
cis-1,2-Dichloroethene	42.5	50.0	85	43.0	50.0	86	62-138	1	40
2-Butanone (MEK)	207	250	83	227	250	91	54-116	9	40
Bromochloromethane	43.1	50.0	86	44.1	50.0	88	65-131	2	40
Chloroform	42.1	50.0	84	43.1	50.0	86	61-137	3	40
1,1,1-Trichloroethane (TCA)	43.9	50.0	88	43.6	50.0	87	59-146	1	40
Carbon Tetrachloride	44.7	50.0	89	44.6	50.0	89	51-135	0	40
1,1-Dichloropropene	42.0	50.0	84	42.4	50.0	85	52-142	1	40
Benzene	44.2	50.0	88	43.4	50.0	87	68-122	2	40
1,2-Dichloroethane (EDC)	40.8	50.0	82	41.9	50.0	84	65-121	3	40
Trichloroethene (TCE)	42.5	50.0	85	42.6	50.0	85	67-126	0	40
1,2-Dichloropropane	44.5	50.0	89	46.3	50.0	93	71-121	4	40
Dibromomethane	40.7	50.0	81	42.4	50.0	85	68-125	4	40
Bromodichloromethane	41.6	50.0	83	42.8	50.0	86	61-143	3	40
cis-1,3-Dichloropropene	41.9	50.0	84	43.2	50.0	86	58-138	3	40
4-Methyl-2-pentanone (MIBK)	234	250	94	262	250	105	69-126	11	40
Toluene	43.5	50.0	87	44.4	50.0	89	75-117	2	40
trans-1,3-Dichloropropene	47.3	50.0	95	47.1	50.0	94	63-121	0	40
1,1,2-Trichloroethane	44.2	50.0	88	44.7	50.0	89	72-118	1	40
Tetrachloroethene (PCE)	43.6	50.0	87	42.2	50.0	84	66-126	3	40
2-Hexanone	255	250	102	265	250	106	67-121	4	40
1,3-Dichloropropane	44.7	50.0	89	45.3	50.0	91	72-118	1	40
Dibromochloromethane	42.4	50.0	85	42.5	50.0	85	69-120	0	40

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COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: Schwyn Environmental Services
Project: City of Walla Walla Sudbury Road Landfill Remedial
Sample Matrix: Soil

Service Request: K1208590
Date Extracted: 09/04/2012
Date Analyzed: 09/04/2012

Lab Control Spike/Duplicate Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5035A
Analysis Method: 8260C

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG1210161

Analyte Name	Lab Control Sample KWG1210161-3 Lab Control Spike			Duplicate Lab Control Sample KWG1210161-4 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Spike Amount	%Rec	Result	Spike Amount	%Rec			
1,2-Dibromoethane (EDB)	44.6	50.0	89	44.6	50.0	89	71-116	0	40
Chlorobenzene	43.4	50.0	87	43.4	50.0	87	70-116	0	40
Ethylbenzene	45.9	50.0	92	44.6	50.0	89	70-118	3	40
1,1,1,2-Tetrachloroethane	43.7	50.0	87	43.0	50.0	86	71-119	2	40
m,p-Xylenes	91.3	100	91	89.9	100	90	69-127	2	40
o-Xylene	45.6	50.0	91	44.6	50.0	89	69-124	2	40
Styrene	41.4	50.0	83	43.4	50.0	87	62-135	5	40
Bromoform	41.7	50.0	83	41.4	50.0	83	62-134	1	40
Isopropylbenzene	43.7	50.0	87	43.0	50.0	86	67-133	1	40
1,1,2,2-Tetrachloroethane	45.3	50.0	91	46.3	50.0	93	60-128	2	40
Bromobenzene	45.0	50.0	90	44.0	50.0	88	71-124	2	40
n-Propylbenzene	48.2	50.0	96	47.0	50.0	94	57-143	3	40
1,2,3-Trichloropropane	42.4	50.0	85	44.2	50.0	88	53-134	4	40
2-Chlorotoluene	48.6	50.0	97	47.1	50.0	94	65-129	3	40
1,3,5-Trimethylbenzene	46.7	50.0	93	46.0	50.0	92	66-132	2	40
4-Chlorotoluene	46.4	50.0	93	45.6	50.0	91	51-134	2	40
tert-Butylbenzene	48.5	50.0	97	46.7	50.0	93	67-131	4	40
1,2,4-Trimethylbenzene	46.1	50.0	92	45.4	50.0	91	65-132	2	40
sec-Butylbenzene	46.5	50.0	93	45.2	50.0	90	55-146	3	40
4-Isopropyltoluene	46.9	50.0	94	45.8	50.0	92	61-132	2	40
1,3-Dichlorobenzene	44.5	50.0	89	44.2	50.0	88	69-128	1	40
1,4-Dichlorobenzene	42.7	50.0	85	41.8	50.0	84	69-125	2	40
n-Butylbenzene	48.7	50.0	97	47.8	50.0	96	53-139	2	40
1,2-Dichlorobenzene	42.4	50.0	85	42.2	50.0	84	67-124	0	40
1,2-Dibromo-3-chloropropane	41.9	50.0	84	44.1	50.0	88	55-127	5	40
1,2,4-Trichlorobenzene	44.4	50.0	89	44.8	50.0	90	57-136	1	40
Hexachlorobutadiene	46.7	50.0	93	45.7	50.0	91	54-140	2	40
Naphthalene	42.7	50.0	85	45.0	50.0	90	54-134	5	40
1,2,3-Trichlorobenzene	43.5	50.0	87	44.2	50.0	88	52-138	2	40

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