

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

Ed Wallace

Project Manager

EW/tj

Page 1 of 20



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
LOO 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.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	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
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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/anlayte is offered by that state.

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PC Ed

Cooler Receipt and Preservation Form

Client / Projec	et: City	$-0 \in V$	Valla W.	a 114		_Serv	ice R	equest <i>KI</i>	2	4	134		
Received: 5/	9/12	Opened:	5/4/17	В	y:!	3T		Unloaded	d:5,	19/19	By:_	BT	
2. Samples we	ere received via? ere received in: (dy seals on cool	(circle)		UPS Box	DHL Envelo	ope				nd Delivered		NA	
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Now part of the ALS Group

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

Units: PERCENT

Basis: Wet

Test Notes:

Lab Code

Date Collected

Date Received

Date Analyzed

Result

Sample Name GW11@56'

K1204434-001

05/08/2012

05/09/2012

05/15/2012

84.6

Result

Notes

Printed: 05/16/2012 16:15 $u:\Stealth\Crystal.rpt\Solids.rpt$

SuperSet Reference: W1205064

Page

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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: Analysis Method: NONE

160.3M

Units: PERCENT

Basis: Wet

Test Notes:

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

Printed: 05/16/2012 16:15

SuperSet Reference: W1205064

Page

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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

Units: ug/Kg

Basis: Dry

Volatile Organic Compounds

Sample Name: GW11@56' **Lab Code:** K1204434-001

Extraction Method: EPA 5035A **Analysis Method:** 8260C

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		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		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	11	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:	···							

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Form 1A - Organic

Page SuperSet Reference: RR141998

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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	J 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	J 5.6	1	05/16/12	05/16/12	KWG1205094	
Bromoform	ND U	J 5.6	1	05/16/12	05/16/12	KWG1205094	
cis-1,4-Dichloro-2-butene	ND U	J 23	1	05/16/12	05/16/12	KWG1205094	
1,1,2,2-Tetrachloroethane	ND U	J 5.6	1	05/16/12	05/16/12	KWG1205094	
trans-1,4-Dichloro-2-butene	ND U	J 23	1	05/16/12	05/16/12	KWG1205094	
1,2,3-Trichloropropane	ND U	J 5.6	1	05/16/12	05/16/12	KWG1205094	
1,4-Dichlorobenzene	ND U	J 5.6	1	05/16/12	05/16/12	KWG1205094	
1,2-Dichlorobenzene	ND U	J 5.6	1	05/16/12	05/16/12	KWG1205094	***************************************
1,2-Dibromo-3-chloropropane	ND U	J 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:

Now part of the ALS Group

Analytical Results

Client:

Schwyn Environmental Services

Project: Sample Matrix: Walla Walla Sudbury LF RI

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

			Dilution	Date	Date	Extraction	
Analyte Name	Result Q	MRL	Factor	Extracted	Analyzed	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:

Merged - Mixed Analyses

Page

Now part of the ALS Group

Analytical Results

Client: Project:

Schwyn Environmental Services Walla Walla Sudbury LF RI

Sample Matrix:

Soil

Service Request: K1204434

Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Lab Code: Method Blank 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		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	

Now part of the ALS Group

Analytical Results

Client:

Schwyn Environmental Services Walla Walla Sudbury LF RI

Project: Sample Matrix:

Soil

Service Request: K1204434

Date Collected: NA **Date Received:** NA

Volatile Organic Compounds

Sample Name: Lab Code: Method Blank 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	74
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:

Page

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:

KWG1205663-5

Extraction Method:

EPA 5035A/5030B

Analysis Method:

8260C

Units: mg/Kg Basis: Dry

Level: Med

			Dilution	Date	Date	Extraction	
Analyte Name	Result Q	MRL	Factor	Extracted	Analyzed	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	11	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:

Merged

Page

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

Sample Name	Lab Code	<u>Sur1</u>	Sur2	Sur3
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-d890-142 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.

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Now part of the ALS Group

QA/QC Report

Client:

Schwyn Environmental Services

Project:

Walla Walla Sudbury LF RI

Sample Matrix:

Soil

Surrogate Recovery Summary Volatile Organic Compounds

Extraction Method: EPA 5035A/5030B

Analysis Method:

8260C

Service Request: K1204434

Units: PERCENT

Level: Med

Sample Name	Lab Code	<u>Sur1</u>	Sur2	Sur3
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.

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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

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

Sample Name:

Batch QC

Lab Code:

K1204398-011

Extraction Method: Analysis Method:

EPA 5035A/5030B

8260C

Units: mg/Kg

Basis: Dry

Level: Med

Extraction Lot: KWG1205663

Batch QCMS

Batch QCDMS

	Sample		VG1205663- Matrix Spike	1		VG1205663- cate Matrix S		%Rec		RPD
Analyte Name	Result	Result	Expected	%Rec	Result	Expected	%Rec	Limits	RPD	
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.

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Now part of the ALS Group

QA/QC Report

Client: Project: Schwyn Environmental Services 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

Lab Control Sample	Duplicate Lab Control Sample
KWG1205094-3	KWG1205094-4
Lab Control Spike	Duplicate Lab Control Spike

	Lab	Lab Control Spike			Duplicate Lab Control Spike				RPD
Analyte Name	Result	Expected	%Rec	Result	Expected	%Rec	%Rec Limits	RPD	Limit
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.

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Now part of the ALS Group

QA/QC Report

Client: Project:

Schwyn Environmental Services Walla Walla Sudbury LF RI

Sample Matrix:

Soil

Service Request: K1204434

Date Extracted: 05/16/2012

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

Lab Control Sample KWG1205094-3 Duplicate Lab Control Sample KWG1205094-4

		Lab Control Spike			Duplicate Lab Control Spike				RPD
Analyte Name	Result	Expected	%Rec	Result	Expected	%Rec	Limits	RPD	Limit
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.

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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 %Rec Limits %Rec **Analyte Name** Result **Expected** 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.

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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

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ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX+1 360 636 1068
Columbia Analytical Services, Inc.
Part of the ALS Group A Campbell Brothers Limited Company

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.
- O 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.
- 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.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	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/anlayte is offered by that state.

ALS ENVIRONMENTAL

Client:

Schwyn Environmental Services

Service Request No.:

K1204954

Project:

Sudbury Road Landfill RI

Date Received:

5/23/12

Sample Matrix:

Soil

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	EULU Date	*********	15	112
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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	Emu	Date	7	/5	1	12	مختد
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CHAIN OF CUSTODY

SR#: 1/1/6 4954

Firm	Time	BELINQUISHED BY:	. r	CLP Deliverable Report	III. Data Validation Report (includes all raw data)	required	up., MS, MSD as	Blank, Surrogate, as Screquired	nod	REPORT REQUIREMENTS P.O. #				***	58210 27 5/22 10:00	DOD State	5B24@ 32' 5/21/12 11:45	SAMPLE I.D. DATE DIME	PHONE # 509 948 3187 FAX#	E-MAIL ADDRESS Craig Co Sch	CHYSTATEZIO School Environ	S. Co	PROJECT MANAGER Circle School	PROJECT NUMBER SUND BOOY Rd Land	PRO IECT NAME
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RCOC #1 03/10



PC ED

Page_____of__

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8

Now part of the ALS Group

Analytical Results

Client:

Schwyn Environmental Services

Project:

Sudbury Road Lanfill RI

Sample Matrix:

Soil

Service Request: K1204954

Total Solids

Prep Method:

Test Notes:

Analysis Method:

NONE

160.3M

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	

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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

Units: PERCENT

Basis: Wet

Analysis Method: **Test Notes:**

160.3M

Lab Code

Sample Result

Sample Result

Duplicate

Average

Relative Percent Difference

Result Notes

SB21@27'

Sample Name

K1204954-003

81.8

81.5

81.7

<1

Printed: 05/25/2012 19:44 $u:\Stealth\Crystal.rpt\Solids.rpt$

SuperSet Reference: W1205515

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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

			Dilution	Date	Date	Extraction	
Analyte Name	Result Q	MRL	Factor	Extracted	Analyzed	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 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:

Page

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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: Lab Code:

SB24@32'

K1204954-001

Extraction Method:

EPA 5035A

Analysis Method:

8260C

Units: ug/Kg Basis: Dry

Level: Low

			Dilution	Date	Date	Extraction	
Analyte Name	Result Q	MRL	Factor	Extracted	Analyzed	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	- 7
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) cis-1,4-Dichloro-2-butene

This compound is searched for as a tentatively identified compound.

This compound is searched for as a tentatively identified compound.

Comments:

Printed: 07/05/2012 09:41:48

Form 1A - Organic 12

SuperSet Reference:

RR143315

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		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:

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

			Dilution	Date	Date	Extraction	
Analyte Name	Result Q	MRL	Factor	Extracted	Analyzed	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	

	%Rec	Control Limits	Date	Note	
Surrogate Name	70 Nec	Limits	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) cis-1,4-Dichloro-2-butene This compound is searched for as a tentatively identified compound.

This compound is searched for as a tentatively identified compound.

Comments:

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: 05/22/2012

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

			Dilution	Date	Date	Extraction	
Analyte Name	Result Q	MRL	Factor	Extracted	Analyzed	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	$\frac{1}{1}$	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	$\hat{1}$	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	î	06/04/12	06/04/12	KWG1205937	
Bromochloromethane	ND U	5.0	ī	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	$\hat{1}$	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	Î.	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	ì	06/04/12	06/04/12	KWG1205937	
Toluene	ND U	5.0	1	06/04/12	06/04/12	KWG1205937	
	ND U	5.0	1	06/04/12	06/04/12	KWG1205937	
trans-1,3-Dichloropropene 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	
Tenachioroeniene (PCE)	3.7	. 5.0		00,04,12	00,01112		

Comments:

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:** 05/22/2012

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

				Dilution	Date	Date	Extraction	
Analyte Name	Result	Q	MRL	Factor	Extracted	Analyzed	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^{-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) cis-1,4-Dichloro-2-butene This compound is searched for as a tentatively identified compound.

This compound is searched for as a tentatively identified compound.

Comments:

RR143315

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: Lab Code:

Method Blank KWG1205937-5

Extraction Method:

EPA 5035A

Analysis Method:

8260C

Units: ug/Kg Basis: Dry

Level: Low

			Dilution	Date	Date	Extraction	
Analyte Name	Result Q	MRL	Factor	Extracted	Analyzed	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	$\mathbf{v}^{*} = 1 + 1$	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	<u></u>
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:

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Form 1A - Organic

RR143315

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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: Lab Code:

Method Blank KWG1205937-5 Units: ug/Kg Basis: Dry

Extraction Method:

EPA 5035A

Level: Low

Analysis Method:

8260C

Analyte Name	Re	sult (Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone		ND 1	U	20	1	06/04/12	06/04/12	KWG1205937	
Dibromochloromethane		ND I	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,2-Dibromoethane (EDB)		ND 1	Ü .	20	1	06/04/12	06/04/12	KWG1205937	
Chlorobenzene		ND I	U	 5.0	 1	06/04/12	06/04/12	KWG1205937	
Ethylbenzene		ND 1	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,1,1,2-Tetrachloroethane		ND 1	Ü .	5.0	1	06/04/12	06/04/12	KWG1205937	
m,p-Xylenes		ND 1	U	5.0	1	06/04/12	06/04/12	KWG1205937	
o-Xylene		ND 1	U	5.0	. 1	06/04/12	06/04/12	KWG1205937	
Styrene		ND 1	U	5.0	1	06/04/12	06/04/12	KWG1205937	
Bromoform		ND 1	U	5.0	 1	06/04/12	06/04/12	KWG1205937	
cis-1,4-Dichloro-2-butene†		ND -1	U	20	1	06/04/12	06/04/12	KWG1205937	
1,1,2,2-Tetrachloroethane		ND 1	U	5.0	1	06/04/12	06/04/12	KWG1205937	
trans-1,4-Dichloro-2-butene		ND 1	U	20	1	06/04/12	06/04/12	KWG1205937	
1,2,3-Trichloropropane		ND 1	U	5.0	1	06/04/12	06/04/12	KWG1205937	
1,4-Dichlorobenzene		ND 1	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	1	12	82-146	06/04/12	Acceptable		
Toluene-d8	1	30	90-142	06/04/12	Acceptable		
4-Bromofluorobenzene	1	25	88-127	06/04/12	Acceptable		

† Analyte Comments

Iodomethane (Methyl Iodide) cis-1,4-Dichloro-2-butene

This compound is searched for as a tentatively identified compound.

This compound is searched for as a tentatively identified compound.

Comments:

SuperSet Reference:

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

Sample Name	Lab Code	<u>Sur1</u>	Sur2	Sur3
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.

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SuperSet Reference: RR143315

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

Lab Control Sample KWG1205937-3

Duplicate Lab Control Sample KWG1205937-4

		Control Spik			Lab Control	%Rec		RPD		
Analyte Name	Result	Result Expected %Rec		Result	Result Expected		Limits	RPD	Limit	
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	9.0	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.

SuperSet Reference:

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

Lab Control Sample KWG1205937-3

Duplicate Lab Control Sample

KWG1205937-4

	Lab	Lab Control Spike			Lab Control	Spike	%Rec		RPD
Analyte Name	Result	Expected	%Rec	Result	Expected	%Rec	Limits	RPD	Limit
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.

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Form 3C - Organic 21

SuperSet Reference:

Page

2 of 2



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

Ed Weller

EW/jw Page 1 of _32____



ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 FAX +1 360 636 1068
Columbia Analytical Services, Inc.
Part of the ALS Group A Campbell Brothers Limited Company

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.
- \boldsymbol{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

Web Site	Number
http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx	UST-040
http://www.azdhs.gov/lab/license/env.htm	AZ0339
http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2286
http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L12-28
http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
http://www.gaepd.org/Documents/techguide_pcb.html#cel	881
Not available	1
http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx	-
-	C-WA-01
http://www.pjlabs.com/	L12-27
http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	3016
Not available	LA110003
Not available	WA0035
http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156,00.html	9949
http://www.health.state.mn.us/accreditation	053-999-368
http://www.dphhs.mt.gov/publichealth/	CERT0047
http://ndep.nv.gov/bsdw/labservice.htm	WA35
http://www.nj.gov/dep/oqa/	WA005
http://www.nmenv.state.nm.us/dwb/Index.htm	-
http://www.dwqlab.org/	605
http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA200001
http://www.scdhec.gov/environment/envserv/	61002
http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	1704427-08-TX
http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C1203
http://dnr.wi.gov/	998386840
http://www.epa.gov/region8/water/dwhome/wyomingdi.html	
www.caslab.com	NA
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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

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/anlayte is offered by that state.

ALS ENVIRONMENTAL

Client:Schwyn Environmental ServicesService Request No.:K1208590Project:Sudbury Road Landfill RIDate Received:8/30/12

Sample Matrix: Soil

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 Est Welles

Columbia Analytical Services 1317 South 13th, Kelso, WA 98626

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

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Project Name: City of Walla	Walla Sudbi	ury Road I	andfill Remedial Investigation						An	alysis Re	lysis Requested		
Project Manager: Craig Schw	vyn							d Ca,	(see				
Company: Schwyn Environm 4621 South Custe Spokane, Washing 509-448-3187: Cra Sampler's Signature:	r Court ton 99223 sig@schwyne	enviro.com			Number of Containers	VOCs (8260B special list)	Vinyl Chloride by 8260 SIM	Chloride, Nitrate, Sulfate Method 300.0) Te, Mg, Mn, K, Na (Method 6010C) [Akalinity Method 2320B) Ammonia (SM 4500) TOC (Method 415.1) TDS (SM 2540C)]	Dissolved Metals below)	MS/MSD			
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RELINQUISHED BY: Signature: Printed Name: Craig Schwyn Firm: Schwyn Environmental Serv	Barriez vices		ne: Crais Schwyn		Signa Printe	d Name	For Cru	0		Signatu Printed	IVED BY: are: Same: Les Kennedy Als		
Date/Time: 8 29 12 1325	<u> </u>	Date/Time:	<u>6/24/12 1325</u>		_6 Date/∃	Γime: 💆	25	12	1		ime: 8/30/12 0920		



PC Ed

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Were custody seals on coolers?	3. C.	Y N	-	, how many		re?				
If present, were custody seals in	tact?	Y N	If	oresent, wer	e they sig	ned and d	ated?		Y	N
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Now part of the ALS Group

Analytical Results

Service Request: K1208590

Client: Schwyn Environmental Services

Project: City of Walla Walla Sudbury Road Landfill Remedial

Sample Matrix: Soil

Total Solids

Prep Method: NONE Units: PERCENT

Analysis Method: 160.3M Basis: Wet

Test Notes:

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	

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Now part of the ALS Group

QA/QC Report

Client: Schwyn Environmental Services

Project: City of Walla Walla Sudbury Road Landfill Remedial

K1208590-001

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:**

Test Notes:

SB-23-29.5-30

160.3M

Units: PERCENT

Basis: Wet

<1

Duplicate Relative Sample Percent Sample Result Result Result Difference Notes Lab Code Sample Name Average

81.2

81.3

81.3

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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 BlankUnits:ug/LLab Code:K1208590-003Basis:NAExtraction Method:EPA 5030BLevel:Low

Analysis Method: 8260C

				Dilution	Date	Date	Extraction	
Analyte Name	Result	Q	MRL	Factor	Extracted	Analyzed	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:

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 SuperSet Reference:
 RR146860

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 BlankUnits:ug/LLab Code:K1208590-003Basis:NAExtraction Method:EPA 5030BLevel:LowAnalysis Method:8260C

Analyte Name	Result	0	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND		0.50	1	09/07/12	09/07/12	KWG1210360	
Dibromochloromethane	ND		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:

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Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services

Sample Matrix:

City of Walla Walla Sudbury Road Landfill Remedial **Project:**

Water

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

Volatile Organic Compounds

Trip Blank Units: ug/L Sample Name: K1208590-003 Lab Code: 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:

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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 BlankUnits:ug/LLab Code:KWG1210360-4Basis:NAExtraction Method:EPA 5030BLevel:Low

Analysis Method: 8260C

	ъ и	0	MDI	Dilution	Date	Date	Extraction	N I .
Analyte Name	Result	<u> </u>	MRL	Factor	Extracted	Analyzed	Lot	Note
Dichlorodifluoromethane	ND		0.50	1	09/07/12	09/07/12	KWG1210360	
Chloromethane	ND		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		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	

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Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services

8260C

Project: City of Walla Walla Sudbury Road Landfill Remedial

Sample Matrix: Water

Analysis Method:

Service Request: K1208590 **Date Collected:** NA

Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name:Method BlankUnits:ug/LLab Code:KWG1210360-4Basis:NAExtraction Method:EPA 5030BLevel:Low

Dilution Date Date **Extraction** MRL Factor **Extracted** Analyzed Analyte Name Result Q Lot Note ND U KWG1210360 0.50 09/07/12 09/07/12 1,3-Dichloropropane 1 Dibromochloromethane ND U 0.50 09/07/12 09/07/12 KWG1210360 1 1,2-Dibromoethane (EDB) ND U 2.0 1 09/07/12 09/07/12 KWG1210360 0.50 KWG1210360 Chlorobenzene ND U 1 09/07/12 09/07/12 KWG1210360 Ethylbenzene ND U 0.50 1 09/07/12 09/07/12 1,1,1,2-Tetrachloroethane ND U 0.50 09/07/12 09/07/12 KWG1210360 1 KWG1210360 m,p-Xylenes ND U 0.50 1 09/07/12 09/07/12 09/07/12 ND U 0.50 09/07/12 KWG1210360 o-Xylene 1 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 ND U 2.0 1 09/07/12 09/07/12 KWG1210360 Isopropylbenzene KWG1210360 1,1,2,2-Tetrachloroethane ND U 0.50 1 09/07/12 09/07/12 Bromobenzene ND U 2.0 1 09/07/12 09/07/12 KWG1210360 09/07/12 09/07/12 KWG1210360 n-Propylbenzene ND U 2.0 1 KWG1210360 0.50 1,2,3-Trichloropropane ND U 1 09/07/12 09/07/12 ND U 2.0 1 09/07/12 09/07/12 KWG1210360 2-Chlorotoluene 1,3,5-Trimethylbenzene ND U 2.0 1 09/07/12 09/07/12 KWG1210360 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 KWG1210360 2.0 1,2,4-Trimethylbenzene ND U 1 09/07/12 09/07/12 ND U 09/07/12 KWG1210360 sec-Butylbenzene 2.0 1 09/07/12 4-Isopropyltoluene ND U 2.0 1 09/07/12 KWG1210360 09/07/12 ND U 0.50 09/07/12 09/07/12 KWG1210360 1,3-Dichlorobenzene 1 1,4-Dichlorobenzene ND U 0.50 1 09/07/12 09/07/12 KWG1210360 09/07/12 KWG1210360 n-Butylbenzene ND U 2.0 1 09/07/12 1,2-Dichlorobenzene KWG1210360 ND U 0.50 1 09/07/12 09/07/12 KWG1210360 1,2-Dibromo-3-chloropropane 09/07/12 ND U 2.0 1 09/07/12 KWG1210360 ND U 2.0 1 09/07/12 09/07/12 1,2,4-Trichlorobenzene KWG1210360 Hexachlorobutadiene ND U 2.0 1 09/07/12 09/07/12 09/07/12 KWG1210360 Naphthalene ND U 2.0 1 09/07/12 ND U 2.0 09/07/12 09/07/12 KWG1210360 1,2,3-Trichlorobenzene

Comments:

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^{*} See Case Narrative

Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services

City of Walla Walla Sudbury Road Landfill Remedial

Sample Matrix: Water

Project:

Service Request: K1208590 **Date Collected:** NA

Date Received: NA

Volatile Organic Compounds

Sample Name:Method BlankUnits:ug/LLab Code:KWG1210360-4Basis: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:

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
 Units:
 ug/Kg

 Lab Code:
 K1208590-001
 Basis:
 Dry

 Extraction Method:
 EPA 5035A
 Level:
 Low

Analysis Method: 8260C

Analyte Name	Result	0	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
							KWG1210161	Note
Dichlorodifluoromethane Chloromethane	ND ND		4.8 4.8	1 1	09/04/12 09/04/12	09/04/12 09/04/12	KWG1210161 KWG1210161	
Vinyl Chloride	ND ND		4.8	1	09/04/12	09/04/12	KWG1210161	
							KWG1210161	
Bromomethane Chloroethane	ND		4.8	1	09/04/12	09/04/12	KWG1210161 KWG1210161	
Trichlorofluoromethane	ND ND		4.8 4.8	1 1	09/04/12 09/04/12	09/04/12 09/04/12	KWG1210161 KWG1210161	
1,1-Dichloroethene	ND		4.8	1	09/04/12	09/04/12	KWG1210161	
Acetone	ND		19	1	09/04/12	09/04/12	KWG1210161	*
Carbon Disulfide	ND		4.8	1	09/04/12	09/04/12	KWG1210161	·
Methylene Chloride	ND		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	

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Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services

City of Walla Walla Sudbury Road Landfill Remedial **Project:**

Sample Matrix: Soil Service Request: K1208590 **Date Collected:** 08/28/2012 **Date Received:** 08/30/2012

Volatile Organic Compounds

SB-23-29.5-30 Units: ug/Kg **Sample Name:** Lab Code: K1208590-001 Basis: Dry **Extraction Method:** EPA 5035A Level: Low

Analysis Method: 8260C

Analyte Name	Result	0	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
	ND		4.8		09/04/12	09/04/12	KWG1210161	11010
1,3-Dichloropropane Dibromochloromethane	ND ND		4.8	1 1	09/04/12	09/04/12	KWG1210161	
1,2-Dibromoethane (EDB)	ND ND		4.8 19	1	09/04/12	09/04/12	KWG1210161	
· · · · · · · · · · · · · · · · · · ·			<u> </u>				KWG1210161	
Chlorobenzene	ND		4.8	1	09/04/12	09/04/12	KWG1210161 KWG1210161	
Ethylbenzene	ND		4.8	1	09/04/12	09/04/12	KWG1210161 KWG1210161	
1,1,1,2-Tetrachloroethane	ND		4.8	1	09/04/12	09/04/12		
m,p-Xylenes	ND		4.8	1	09/04/12	09/04/12	KWG1210161	
o-Xylene	ND	_	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:

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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
 Units:
 ug/Kg

 Lab Code:
 K1208590-001
 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:

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Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services

Project: City of Walla Walla Sudbury Road Landfill Remedial

Sample Matrix: Soil

Date Collected: K1208590 **Date Received:** 08/29/2012 **Date Received:** 08/30/2012

Volatile Organic Compounds

 Sample Name:
 SB-26-28.5-29
 Units:
 ug/Kg

 Lab Code:
 K1208590-002
 Basis:
 Dry

 Extraction Method:
 EPA 5035A
 Level:
 Low

Analysis Method: 8260C

Analyte Name	Result	0	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND		5.0	1	09/04/12	09/04/12	KWG1210161	11010
Chloromethane	ND ND		5.0	1	09/04/12	09/04/12	KWG1210161	
Vinyl Chloride	ND ND		5.0	1	09/04/12	09/04/12	KWG1210161	
Bromomethane	ND		5.0	1	09/04/12	09/04/12	KWG1210161	
Chloroethane	ND ND		5.0	1	09/04/12	09/04/12	KWG1210161	
Trichlorofluoromethane	ND		5.0	1	09/04/12	09/04/12	KWG1210161	
1,1-Dichloroethene	ND		5.0	1	09/04/12	09/04/12	KWG1210161	
Acetone	ND		20	1	09/04/12	09/04/12	KWG1210161	
Carbon Disulfide	ND		5.0	1	09/04/12	09/04/12	KWG1210161	*
Methylene Chloride	ND		9.9	1	09/04/12	09/04/12	KWG1210161	
trans-1,2-Dichloroethene	ND		5.0	1	09/04/12	09/04/12	KWG1210161	
1,1-Dichloroethane	ND		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	

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Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services

City of Walla Walla Sudbury Road Landfill Remedial **Project:**

Sample Matrix: Soil Service Request: K1208590 **Date Collected:** 08/29/2012 **Date Received:** 08/30/2012

Volatile Organic Compounds

SB-26-28.5-29 Units: ug/Kg **Sample Name:** Lab Code: K1208590-002 Basis: Dry **Extraction Method:** EPA 5035A Level: Low

Analysis Method: 8260C

Analyte Name	Result	0	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
	ND				09/04/12	09/04/12	KWG1210161	Note
1,3-Dichloropropane Dibromochloromethane	ND ND		5.0 5.0	1 1	09/04/12	09/04/12	KWG1210161	
1,2-Dibromoethane (EDB)	ND ND	_	20	1	09/04/12	09/04/12	KWG1210161	
Chlorobenzene	ND		5.0	1	09/04/12	09/04/12	KWG1210161 KWG1210161	
Ethylbenzene	ND		5.0	1	09/04/12	09/04/12	KWG1210161 KWG1210161	
1,1,1,2-Tetrachloroethane	ND		5.0	1	09/04/12	09/04/12		
m,p-Xylenes	ND		5.0	1	09/04/12	09/04/12	KWG1210161	
o-Xylene	ND	_	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:

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Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services

City of Walla Walla Sudbury Road Landfill Remedial **Project:**

Sample Matrix: Soil Service Request: K1208590 **Date Collected:** 08/29/2012

Date Received: 08/30/2012

Volatile Organic Compounds

SB-26-28.5-29 **Sample Name:** 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:

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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 Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name:Method BlankUnits:ug/KgLab Code:KWG1210161-5Basis:DryExtraction Method:EPA 5035ALevel:Low

Analysis Method: 8260C

Analyte Name	Result	0	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
							KWG1210161	Note
Dichlorodifluoromethane Chloromethane	ND ND		5.0 5.0	<u>1</u> 1	09/04/12 09/04/12	09/04/12 09/04/12	KWG1210161 KWG1210161	
Vinyl Chloride	ND ND		5.0	1	09/04/12	09/04/12	KWG1210161	
							KWG1210161	
Bromomethane Chloroethane	ND		5.0	1	09/04/12	09/04/12	KWG1210161 KWG1210161	
Trichlorofluoromethane	ND ND		5.0 5.0	1 1	09/04/12 09/04/12	09/04/12 09/04/12	KWG1210161 KWG1210161	
1,1-Dichloroethene	ND		5.0	1	09/04/12	09/04/12	KWG1210161	
Acetone	ND		20	1	09/04/12	09/04/12	KWG1210161	*
Carbon Disulfide	ND		5.0	1	09/04/12	09/04/12	KWG1210161	*
Methylene Chloride	ND		10	1	09/04/12	09/04/12	KWG1210161	
trans-1,2-Dichloroethene	ND		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	

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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 Collected: NA

Date Received: NA

Volatile Organic Compounds

 Sample Name:
 Method Blank
 Units:
 ug/Kg

 Lab Code:
 KWG1210161-5
 Basis:
 Dry

 Extraction Method:
 EPA 5035A
 Level:
 Low

Analysis Method: 8260C

				Dilution	Date	Date	Extraction	
Analyte Name	Result	Q	MRL	Factor	Extracted	Analyzed	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:

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Now part of the ALS Group

Analytical Results

Client: Schwyn Environmental Services

City of Walla Walla Sudbury Road Landfill Remedial

Sample Matrix: Soil

Project:

Service Request: K1208590 **Date Collected:** NA

Date Received: NA

Volatile Organic Compounds

Sample Name:Method BlankUnits:ug/KgLab Code:KWG1210161-5Basis: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:

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Now part of the ALS Group

QA/QC Report

Client: Schwyn Environmental Services

City of Walla Walla Sudbury Road Landfill Remedial **Project:**

Sample Matrix: Water

> **Surrogate Recovery Summary Volatile Organic Compounds**

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

Level: Low

Service Request: K1208590

Sample Name	<u>Lab Code</u>	Sur1	Sur2	Sur3
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.

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Now part of the ALS Group

QA/QC Report

Client: Schwyn Environmental Services

City of Walla Walla Sudbury Road Landfill Remedial **Project:**

Sample Matrix: Soil

> **Surrogate Recovery Summary Volatile Organic Compounds**

Units: PERCENT **Extraction Method:** EPA 5035A **Analysis Method:** 8260C

Level: Low

Service Request: K1208590

Sample Name	Lab Code	Sur1	Sur2	Sur3
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

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

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

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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

Units: ug/L

Basis: NA

Level: Low

Extraction Lot: KWG1210360

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

Sample Name:

Batch QC

Lab Code:

K1208694-001

Extraction Method: Analysis Method:

EPA 5030B 8260C

Batch QCMS

Batch QCDMS

KWG1210360-1 Matrix Spike

KWG1210360-2 **Duplicate Matrix Spike**

			-zuerza opiac			oute material Sp				
Analyte Name	Sample Result	Result	Spike Amount	%Rec	Result	Spike Amount	%Rec	%Rec Limits	RPD	RPD Limit
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

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

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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.

Form 3A_7Organic Printed: 09/19/2012 08:33:07 Page 1 of 1 $u:\Stealth\Crystal.rpt\Form3DMS.rpt$ SuperSet Reference: RR146860

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:
Analysis Method:

EPA 5035A 8260C Units: ug/Kg

Basis: Dry

Level: Low

Extraction Lot: KWG1210161

Batch QCMS KWG1210161-1 Matrix Spike Batch QCDMS KWG1210161-2 Duplicate Matrix Spike

Analyte Name	Sample Result	Result	Spike Amount	%Rec	Result	Spike Amount	%Rec	%Rec Limits	RPD	RPD Limit
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.

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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

Analyta Nama	Do14	Spike Amount	%Rec	%Rec Limits
Analyte Name	Result			
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

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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.

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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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

Lab Control Sample KWG1210161-3 Lab Control Spike Duplicate Lab Control Sample KWG1210161-4 Duplicate Lab Control Spike

Analyte Name	Lau	Control Spike	·	Duplicate	Lab Control	эрікс			
		Spike Amount			Spike		%Rec	RPD	RPD
	Result		%Rec	Result	Amount	%Rec	Limits		Limit
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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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: EP

EPA 5035A

Analysis Method: 8260C

Units: ug/Kg
Basis: Dry

Level: Low

Extraction Lot: KWG1210161

Lab Control Sample KWG1210161-3 Lab Control Spike Duplicate Lab Control Sample KWG1210161-4 Duplicate Lab Control Spike

Analyte Name				Duplicat	c Emb Control	эрте			
	Result	Spike Amount	%Rec	Result	Spike Amount	%Rec	%Rec Limits	RPD	RPD Limit
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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