EARTH SCIENCE ENGINEERING, LLC
201 West Dunbar Cave Road
Clarksville, TN 37040
931-645-8008 Fax: 931-645-0180

July 27, 2017

Mr. Nimesh Patel
Shree Hospitality
714 Spence Lane
Nashville, Tennessee 37217

RE: Phase II Environmental Site Assessment
5701 Robertson Avenue
ESE Project No.: 75935

Dear Mr. Patel:

Per our e-mail discussions, Earth Science Engineering, L.L.C. (ESE) is pleased to submit these subsurface investigation results for the 5701 Robertson Avenue site (currently Richland Baptist Church) in Nashville, Tennessee. Included are the results of the exploration and a site sketch outlining the boring and sampling locations.

Background According to the June 08, 2017 Phase I ESA by Earth Science Engineering, L.L.C., the following two items of environmental concern was noted:

1. The previous Shearons Garage Auto Repair at 518 Snyder Avenue (southwest adjacent to the subject site).

2. Historic aerial photography indicates a potential automobile service station and possible garage east adjacent to the subject property. Two different buildings are indicated at this same location from some time after 1963 to sometime after 1997. This may be the Exxon R/S that had a leaking UST system according to EDR.

These two recognized items of environmental concern have potential to have impacted the subject property with petroleum based contamination.

Soil Sampling Six soil borings were attempted at selected locations within the exploratory area. A copy of the boring locations is attached.

Sampling was performed with a Geoprobe 6620DT direct push machine. Drilling and sampling tools were decontaminated with detergent and water between each boring and sampling event, respectively. After drilling, all bore holes were back filled with bentonite.

No free water was encountered in the six direct push holes; although water was observed on the sampling rods at boring R-3*. Refusal was encountered at the following depths:

Location	Refusal Depth	Location	Refusal Depth	Location	Refusal Depth
R-1	4.8 feet	R-2	1 foot	R-3*	2.4 feet
R-4	5.25 feet	R-5	7 feet	R-6	5.8 feet

Sample Screening During sampling at the site, each sample was split into two sealed containers. One of the containers was placed immediately in a cooler of ice and the other container was placed on a level surface in sunlight for several minutes. Each "sunlight" sample was then screened with a Minirae 3000 photoionization detector (PID). These results are shown below:

Location	PID	Location	PID	Location	PID
R-1 (0-4)	14.0 ppm	R-2 (0-1)	59.3 ppm (A)	R-3 (0-2.4)	49.2 ppm *

(A) too small of a sample for laboratory analysis

Location	PID	Location	PID	Location	PID
R-4 (0-4)	25.1 ppm	R-5 (0-4)	27.4 ppm *	R-6 (0-4)	16.6 ppm
(4-5.25)	21.7 ppm	(4-7)	22.8 ppm	(4-5.8)	(B)

(B) no sample recovered

* The cooler sample corresponding to highest PID sample from each the exploratory areas was selected for analytical testing.

Note the PID provides an indicator of potential contamination and not actual values.

Analytical Testing The two selected soil samples were then delivered to Environmental Science Corporation for the following tests:

R-3 (0-2.4): BTEX, Napthalene, EPH, and Lead
R-4 (0-4): Volatiles, Semivolatiles, Hexavalent Chromium, PCBs, and RCRA metals

Metals testing also obtained BDL other than that shown in the tables below:

Sample	Parameter	Result (mg/kg)	Screening, Residential**	Screening, Industrial**
R-3 (0-2.4)	Lead	10.3	400	800
	Benzene	0.00256	1.2	5.1

Sample	Parameter	Result (mg/kg)	Screening, Residential**	Screening, Industrial**
R-5 (0-4)	Mercury	0.0458	1.1	4.6
	Arsenic	6.79	0.68 (1)	3 (1)
	Barium	151	1,500	22,000
	Chromium *	18	NP *	NP *
	Lead	19.3	400	800
	Benzene	0.00243	1.2	5.1
	Toluene	0.00506	490	4,700
	1,2,4-Trimethylbenzene	0.00218	30	180
	Xylenes, Total	0.00575	58	250

* Hexavalent Chromium is below detection limit.

** Residential and Industrial Regional Screening Levels from USEPA Summary Table (TR=1E-06, HQ-0.1) June 2017. Values are in mg/kg. NP = Not Provided in the Summary Table.

Analytical test results, as provided by Environmental Science Corporation, are attached to this letter. *Surrogate recovery* is a quality control measure for the analytical laboratory and is not representative of the site testing.

Conclusions In consideration of the findings obtained during this investigation, it does not appear as though the subject property has been significantly impacted by automotive fuels, waste oils, and/or other similar petroleum based materials identified as items of environmental concern in the Phase I ESA:

1. The previous Shearons Garage Auto Repair at 518 Snyder Avenue (southwest adjacent to the subject site).

2. Historic aerial photography indicates a potential automobile service station and possible garage east adjacent to the subject property. Two different buildings are indicated at this same location from some time after 1963 to sometime after 1997. This may be the Exxon R/S that had a leaking UST system according to EDR.

Closure Thank you for this opportunity to assist you with this project. As always, we welcome the opportunity to be of assistance to you.

If you have any questions concerning these results or if ESE may be of further service in any manner, please call 931-645-8008 or e-mail alice@eseng.us at your earliest convenience.

Sincerely,

EARTH SCIENCE ENGINEERING, LLC

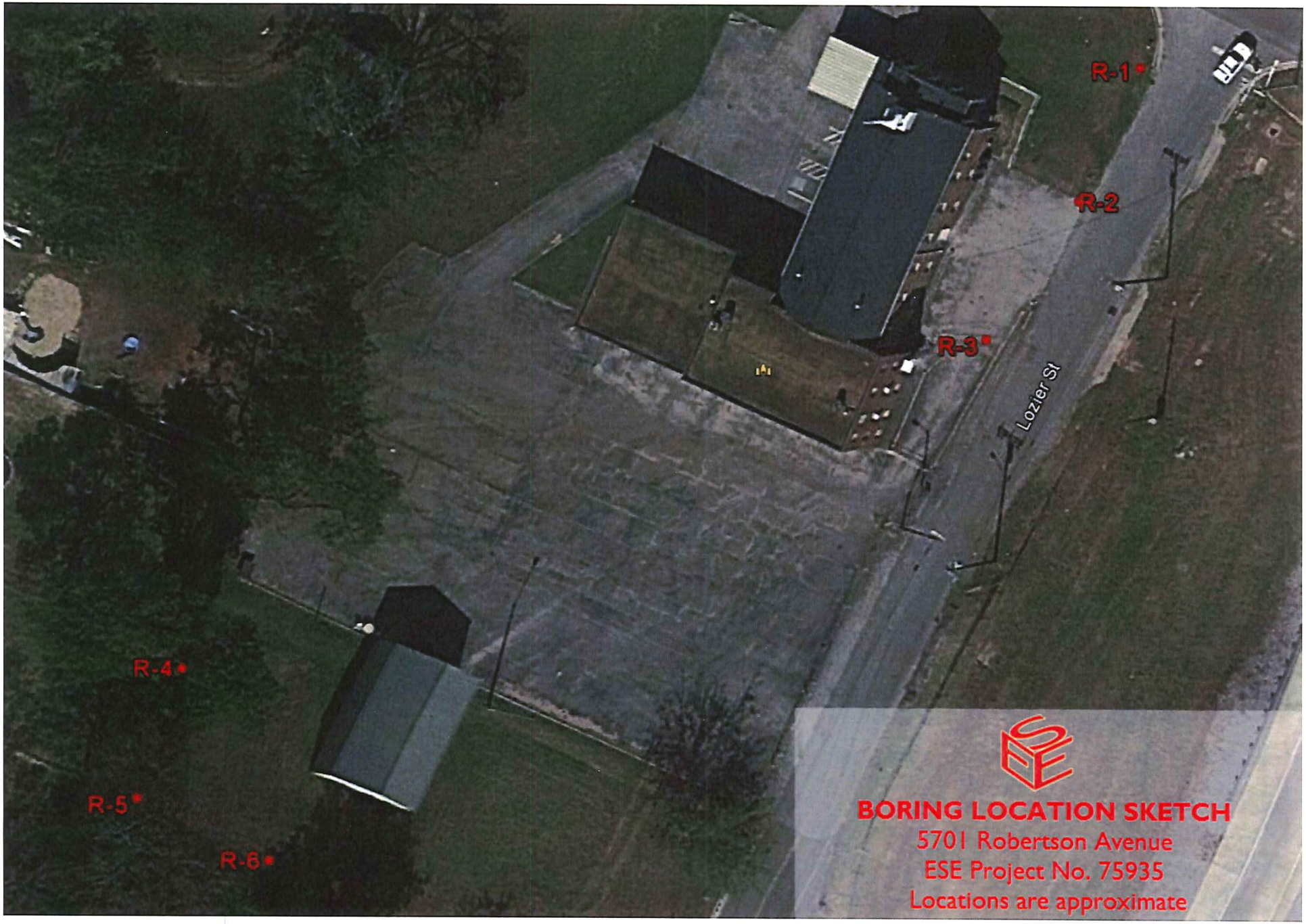
Shannon L. Medina

CHRISTOPHER K. CASTEEL
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

Christopher K. Casteel, P.E.

SLM/CKC/alf

Attachments: Boring Locations (1 page)
Analytical Results (30 pages)



BORING LOCATION SKETCH

5701 Robertson Avenue

ESE Project No. 75935

Locations are approximate

ANALYTICAL REPORT

July 19, 2017

Earth Science Engineering

Sample Delivery Group:	L921869
Samples Received:	07/11/2017
Project Number:	75935
Description:	5701 Robertson Ave

Report To:

Mr. Chris Casteel
201 West Dunbar Cave Rd.
Clarksville, TN 37040

Entire Report Reviewed By:

Craig Cothron
Technical Service Representative

R-3 L921869-01 Solid

Collected by: Shannon Medina
Collected date/time: 07/10/17 16:28
Received date/time: 07/11/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010B	WG998863	1	07/14/17 09:58	07/17/17 18:36	JDG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG998583	1	07/13/17 14:06	07/14/17 07:32	ACG
Semi-Volatile Organic Compounds (GC) by Method EPH	WG998573	1	07/16/17 07:39	07/19/17 05:55	ACM

R-5 L921869-02 Solid

Collected by: Shannon Medina
Collected date/time: 07/10/17 16:31
Received date/time: 07/11/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 3060A/7196A	WG998092	1	07/13/17 09:15	07/13/17 13:40	MA
Mercury by Method 7471A	WG998307	1	07/13/17 11:04	07/13/17 16:04	EL
Metals (ICP) by Method 6010B	WG998863	1	07/14/17 09:58	07/17/17 18:39	JDG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG998578	1	07/13/17 14:06	07/13/17 17:46	DWR
Polychlorinated Biphenyls (GC) by Method 8082	WG998673	1	07/14/17 08:21	07/15/17 14:07	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG998413	1	07/14/17 00:00	07/14/17 16:28	KMP

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Craig Cothron
Technical Service Representative

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Lead	10.3		0.500	1	07/17/2017 18:36	WG998863

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	0.00256		0.00100	1	07/14/2017 07:32	WG998583
Toluene	ND		0.00500	1	07/14/2017 07:32	WG998583
Ethylbenzene	ND		0.00100	1	07/14/2017 07:32	WG998583
Xylenes, Total	ND		0.00300	1	07/14/2017 07:32	WG998583
Naphthalene	ND		0.00500	1	07/14/2017 07:32	WG998583
(S) Toluene-d8	*96.1*		*80.0-120*		*07/14/2017 07:32*	WG998583
(S) Dibromofluoromethane	*92.7*		*74.0-131*		*07/14/2017 07:32*	WG998583
(S) a,a,a-Trifluorotoluene	*104*		*80.0-120*		*07/14/2017 07:32*	WG998583
(S) 4-Bromofluorobenzene	*97.0*		*64.0-132*		*07/14/2017 07:32*	WG998583

Semi-Volatile Organic Compounds (GC) by Method EPH

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Extractable Petroleum Hydrocarbon	5.15		4.00	1	07/19/2017 05:55	WG998573
(S) o-Terphenyl	*81.4*		*18.0-148*		*07/19/2017 05:55*	WG998573

Wet Chemistry by Method 3060A/7196A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium,Hexavalent	ND		2.00	1	07/13/2017 13:40	WG998092

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.0458		0.0200	1	07/13/2017 16:04	WG998307

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	6.79		2.00	1	07/17/2017 18:39	WG998863
Barium	151		0.500	1	07/17/2017 18:39	WG998863
Cadmium	ND		0.500	1	07/17/2017 18:39	WG998863
Chromium	18.0		1.00	1	07/17/2017 18:39	WG998863
Lead	19.3		0.500	1	07/17/2017 18:39	WG998863
Selenium	ND		2.00	1	07/17/2017 18:39	WG998863
Silver	ND		1.00	1	07/17/2017 18:39	WG998863

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	ND	J3	0.0500	1	07/13/2017 17:46	WG998578
Acrylonitrile	ND	J3	0.0100	1	07/13/2017 17:46	WG998578
Benzene	0.00243		0.00100	1	07/13/2017 17:46	WG998578
Bromobenzene	ND		0.00100	1	07/13/2017 17:46	WG998578
Bromodichloromethane	ND		0.00100	1	07/13/2017 17:46	WG998578
Bromoform	ND	J4	0.00100	1	07/13/2017 17:46	WG998578
Bromomethane	ND		0.00500	1	07/13/2017 17:46	WG998578
n-Butylbenzene	ND		0.00100	1	07/13/2017 17:46	WG998578
sec-Butylbenzene	ND		0.00100	1	07/13/2017 17:46	WG998578
tert-Butylbenzene	ND		0.00100	1	07/13/2017 17:46	WG998578
Carbon tetrachloride	ND		0.00100	1	07/13/2017 17:46	WG998578
Chlorobenzene	ND		0.00100	1	07/13/2017 17:46	WG998578
Chlorodibromomethane	ND		0.00100	1	07/13/2017 17:46	WG998578
Chloroethane	ND		0.00500	1	07/13/2017 17:46	WG998578
Chloroform	ND		0.00500	1	07/13/2017 17:46	WG998578
Chloromethane	ND		0.00250	1	07/13/2017 17:46	WG998578
2-Chlorotoluene	ND		0.00100	1	07/13/2017 17:46	WG998578
4-Chlorotoluene	ND		0.00100	1	07/13/2017 17:46	WG998578
1,2-Dibromo-3-Chloropropane	ND	J3 J4	0.00500	1	07/13/2017 17:46	WG998578
1,2-Dibromoethane	ND		0.00100	1	07/13/2017 17:46	WG998578
Dibromomethane	ND		0.00100	1	07/13/2017 17:46	WG998578
1,2-Dichlorobenzene	ND		0.00100	1	07/13/2017 17:46	WG998578
1,3-Dichlorobenzene	ND		0.00100	1	07/13/2017 17:46	WG998578
1,4-Dichlorobenzene	ND		0.00100	1	07/13/2017 17:46	WG998578
Dichlorodifluoromethane	ND		0.00500	1	07/13/2017 17:46	WG998578
1,1-Dichloroethane	ND		0.00100	1	07/13/2017 17:46	WG998578
1,2-Dichloroethane	ND		0.00100	1	07/13/2017 17:46	WG998578
1,1-Dichloroethene	ND		0.00100	1	07/13/2017 17:46	WG998578
cis-1,2-Dichloroethene	ND		0.00100	1	07/13/2017 17:46	WG998578
trans-1,2-Dichloroethene	ND		0.00100	1	07/13/2017 17:46	WG998578
1,2-Dichloropropane	ND		0.00100	1	07/13/2017 17:46	WG998578
1,1-Dichloropropene	ND		0.00100	1	07/13/2017 17:46	WG998578
1,3-Dichloropropane	ND		0.00100	1	07/13/2017 17:46	WG998578

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	ND		0.00100	1	07/13/2017 17:46	WG998578
trans-1,3-Dichloropropene	ND		0.00100	1	07/13/2017 17:46	WG998578
2,2-Dichloropropane	ND		0.00100	1	07/13/2017 17:46	WG998578
Di-isopropyl ether	ND		0.00100	1	07/13/2017 17:46	WG998578
Ethylbenzene	ND		0.00100	1	07/13/2017 17:46	WG998578
Hexachloro-1,3-butadiene	ND		0.00100	1	07/13/2017 17:46	WG998578
Isopropylbenzene	ND		0.00100	1	07/13/2017 17:46	WG998578
p-Isopropyltoluene	ND		0.00100	1	07/13/2017 17:46	WG998578
2-Butanone (MEK)	ND	J3	0.0100	1	07/13/2017 17:46	WG998578
Methylene Chloride	ND		0.00500	1	07/13/2017 17:46	WG998578
4-Methyl-2-pentanone (MIBK)	ND	J3	0.0100	1	07/13/2017 17:46	WG998578
Methyl tert-butyl ether	ND		0.00100	1	07/13/2017 17:46	WG998578
Naphthalene	ND		0.00500	1	07/13/2017 17:46	WG998578
n-Propylbenzene	ND		0.00100	1	07/13/2017 17:46	WG998578
Styrene	ND		0.00100	1	07/13/2017 17:46	WG998578
1,1,1,2-Tetrachloroethane	ND		0.00100	1	07/13/2017 17:46	WG998578
1,1,2,2-Tetrachloroethane	ND	J4	0.00100	1	07/13/2017 17:46	WG998578
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	07/13/2017 17:46	WG998578
Tetrachloroethene	ND		0.00100	1	07/13/2017 17:46	WG998578
Toluene	0.00506		0.00500	1	07/13/2017 17:46	WG998578
1,2,3-Trichlorobenzene	ND		0.00100	1	07/13/2017 17:46	WG998578
1,2,4-Trichlorobenzene	ND		0.00100	1	07/13/2017 17:46	WG998578
1,1,1-Trichloroethane	ND		0.00100	1	07/13/2017 17:46	WG998578
1,1,2-Trichloroethane	ND	J4	0.00100	1	07/13/2017 17:46	WG998578
Trichloroethene	ND		0.00100	1	07/13/2017 17:46	WG998578
Trichlorofluoromethane	ND		0.00500	1	07/13/2017 17:46	WG998578
1,2,3-Trichloropropane	ND	J4	0.00250	1	07/13/2017 17:46	WG998578
1,2,4-Trimethylbenzene	0.00218		0.00100	1	07/13/2017 17:46	WG998578
1,2,3-Trimethylbenzene	ND		0.00100	1	07/13/2017 17:46	WG998578
1,3,5-Trimethylbenzene	ND		0.00100	1	07/13/2017 17:46	WG998578
Vinyl chloride	ND		0.00100	1	07/13/2017 17:46	WG998578
Xylenes, Total	0.00575		0.00300	1	07/13/2017 17:46	WG998578
(S) Toluene-d8	*105*		*80.0-120*		*07/13/2017 17:46*	WG998578
(S) Dibromofluoromethane	*100*		*74.0-131*		*07/13/2017 17:46*	WG998578
(S) 4-Bromofluorobenzene	*97.0*		*64.0-132*		*07/13/2017 17:46*	WG998578

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND		0.0170	1	07/15/2017 14:07	WG998673
PCB 1221	ND		0.0170	1	07/15/2017 14:07	WG998673
PCB 1232	ND		0.0170	1	07/15/2017 14:07	WG998673
PCB 1242	ND		0.0170	1	07/15/2017 14:07	WG998673
PCB 1248	ND		0.0170	1	07/15/2017 14:07	WG998673
PCB 1254	ND		0.0170	1	07/15/2017 14:07	WG998673
PCB 1260	ND		0.0170	1	07/15/2017 14:07	WG998673
(S) Decachlorobiphenyl	*75.6*		*10.0-148*		*07/15/2017 14:07*	WG998673
(S) Tetrachloro-m-xylene	*72.1*		*21.0-146*		*07/15/2017 14:07*	WG998673

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.0330	1	07/14/2017 16:28	WG998413
Acenaphthylene	ND		0.0330	1	07/14/2017 16:28	WG998413
Anthracene	ND		0.0330	1	07/14/2017 16:28	WG998413
Benzidine	ND	J4	0.333	1	07/14/2017 16:28	WG998413
Benzo(a)anthracene	ND		0.0330	1	07/14/2017 16:28	WG998413
Benzo(b)fluoranthene	ND		0.0330	1	07/14/2017 16:28	WG998413
Benzo(k)fluoranthene	ND		0.0330	1	07/14/2017 16:28	WG998413
Benzo(g,h,i)perylene	ND		0.0330	1	07/14/2017 16:28	WG998413
Benzo(a)pyrene	ND		0.0330	1	07/14/2017 16:28	WG998413
Bis(2-chlorethoxy)methane	ND		0.333	1	07/14/2017 16:28	WG998413
Bis(2-chloroethyl)ether	ND		0.333	1	07/14/2017 16:28	WG998413
Bis(2-chloroisopropyl)ether	ND		0.333	1	07/14/2017 16:28	WG998413
4-Bromophenyl-phenylether	ND		0.333	1	07/14/2017 16:28	WG998413
2-Chloronaphthalene	ND		0.0330	1	07/14/2017 16:28	WG998413
4-Chlorophenyl-phenylether	ND		0.333	1	07/14/2017 16:28	WG998413
Chrysene	ND		0.0330	1	07/14/2017 16:28	WG998413
Dibenz(a,h)anthracene	ND		0.0330	1	07/14/2017 16:28	WG998413
3,3-Dichlorobenzidine	ND		0.333	1	07/14/2017 16:28	WG998413
2,4-Dinitrotoluene	ND		0.333	1	07/14/2017 16:28	WG998413
2,6-Dinitrotoluene	ND		0.333	1	07/14/2017 16:28	WG998413
Fluoranthene	ND		0.0330	1	07/14/2017 16:28	WG998413
Fluorene	ND		0.0330	1	07/14/2017 16:28	WG998413
Hexachlorobenzene	ND		0.333	1	07/14/2017 16:28	WG998413
Hexachloro-1,3-butadiene	ND		0.333	1	07/14/2017 16:28	WG998413
Hexachlorocyclopentadiene	ND		0.333	1	07/14/2017 16:28	WG998413
Hexachloroethane	ND		0.333	1	07/14/2017 16:28	WG998413
Indeno(1,2,3-cd)pyrene	ND		0.0330	1	07/14/2017 16:28	WG998413
Isophorone	ND		0.333	1	07/14/2017 16:28	WG998413
Naphthalene	ND		0.0330	1	07/14/2017 16:28	WG998413
Nitrobenzene	ND		0.333	1	07/14/2017 16:28	WG998413
n-Nitrosodimethylamine	ND		0.333	1	07/14/2017 16:28	WG998413
n-Nitrosodiphenylamine	ND		0.333	1	07/14/2017 16:28	WG998413
n-Nitrosodi-n-propylamine	ND		0.333	1	07/14/2017 16:28	WG998413
Phenanthrene	ND		0.0330	1	07/14/2017 16:28	WG998413
Benzylbutyl phthalate	ND		0.333	1	07/14/2017 16:28	WG998413
Bis(2-ethylhexyl)phthalate	ND		0.333	1	07/14/2017 16:28	WG998413
Di-n-butyl phthalate	ND		0.333	1	07/14/2017 16:28	WG998413
Diethyl phthalate	ND		0.333	1	07/14/2017 16:28	WG998413
Dimethyl phthalate	ND		0.333	1	07/14/2017 16:28	WG998413
Di-n-octyl phthalate	ND		0.333	1	07/14/2017 16:28	WG998413
Pyrene	ND		0.0330	1	07/14/2017 16:28	WG998413
1,2,4-Trichlorobenzene	ND		0.333	1	07/14/2017 16:28	WG998413
4-Chloro-3-methylphenol	ND		0.333	1	07/14/2017 16:28	WG998413
2-Chlorophenol	ND		0.333	1	07/14/2017 16:28	WG998413
2,4-Dichlorophenol	ND		0.333	1	07/14/2017 16:28	WG998413
2,4-Dimethylphenol	ND		0.333	1	07/14/2017 16:28	WG998413
4,6-Dinitro-2-methylphenol	ND	J3	0.333	1	07/14/2017 16:28	WG998413
2,4-Dinitrophenol	ND		0.333	1	07/14/2017 16:28	WG998413
2-Nitrophenol	ND		0.333	1	07/14/2017 16:28	WG998413
4-Nitrophenol	ND		0.333	1	07/14/2017 16:28	WG998413
Pentachlorophenol	ND		0.333	1	07/14/2017 16:28	WG998413
Phenol	ND		0.333	1	07/14/2017 16:28	WG998413
2,4,6-Trichlorophenol	ND		0.333	1	07/14/2017 16:28	WG998413
(S) 2-Fluorophenol	*46.7*		*20.0-120*		*07/14/2017 16:28*	WG998413
(S) Phenol-d5	*45.8*		*20.0-120*		*07/14/2017 16:28*	WG998413
(S) Nitrobenzene-d5	*50.5*		*18.0-125*		*07/14/2017 16:28*	WG998413

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
(S) 2-Fluorobiphenyl	*49.7*		*28.0-120*		*07/14/2017 16:28*	WG998413
(S) 2,4,6-Tribromophenol	*54.0*		*17.0-137*		*07/14/2017 16:28*	WG998413
(S) p-Terphenyl-d14	*42.2*		*13.0-131*		*07/14/2017 16:28*	WG998413

Method Blank (MB)

(MB) R3233035-1 07/13/17 13:34

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Chromium,Hexavalent	U		0.64	2.00

L920919-02 Original Sample (OS) • Duplicate (DUP)

(OS) L920919-02 07/13/17 13:37 • (DUP) R3233035-4 07/13/17 13:37

Analyte	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/kg	mg/kg		%		%
Chromium,Hexavalent	U	0	1	0		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3233035-2 07/13/17 13:35 • (LCSD) R3233035-3 07/13/17 13:35

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Chromium,Hexavalent	56.9	47.4	47.4	83	83	80-120			0	20

L920919-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L920919-02 07/13/17 13:37 • (MS) R3233035-5 07/13/17 13:38 • (MSD) R3233035-6 07/13/17 13:38

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chromium,Hexavalent	22.4	U	17	17.1	76	76	1	75-125			0	20

Method Blank (MB)

(MB) R3233109-1 07/13/17 15:03

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.0028	0.0200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3233109-2 07/13/17 15:05 • (LCSD) R3233109-3 07/13/17 15:07

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	0.300	0.299	0.308	100	103	80-120			3	20

L921862-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L921862-21 07/13/17 15:10 • (MS) R3233109-4 07/13/17 15:12 • (MSD) R3233109-5 07/13/17 15:15

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.300	0.0333	0.335	0.351	101	106	1	75-125			5	20

Method Blank (MB)

(MB) R3233900-1 07/17/17 17:26

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.65	2.00
Barium	U		0.17	0.500
Cadmium	U		0.07	0.500
Chromium	U		0.14	1.00
Lead	U		0.19	0.500
Selenium	U		0.74	2.00
Silver	U		0.28	1.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3233900-2 07/17/17 17:29 • (LCSD) R3233900-3 07/17/17 17:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	100	100	99.9	100	100	80-120			0	20
Barium	100	102	102	102	102	80-120			0	20
Cadmium	100	99.2	99.1	99	99	80-120			0	20
Chromium	100	99.9	100	100	100	80-120			1	20
Lead	100	99.8	99.6	100	100	80-120			0	20
Selenium	100	101	101	101	101	80-120			0	20
Silver	20.0	19.2	19.2	96	96	80-120			0	20

L921802-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L921802-01 07/17/17 17:34 • (MS) R3233900-6 07/17/17 17:42 • (MSD) R3233900-7 07/17/17 17:45

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	114	ND	120	123	104	107	1	75-125			2	20
Barium	114	86.0	183	183	85	85	1	75-125			0	20
Cadmium	114	ND	119	120	104	105	1	75-125			2	20
Chromium	114	5.39	115	114	96	95	1	75-125			1	20
Lead	114	7.32	124	129	102	107	1	75-125			4	20
Selenium	114	ND	121	125	106	109	1	75-125			3	20
Silver	22.8	ND	22.8	23.3	100	102	1	75-125			2	20

Method Blank (MB)

(MB) R3233561-1 07/13/17 13:17

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100
Isopropylbenzene	U		0.000243	0.00100

Method Blank (MB)

(MB) R3233561-1 07/13/17 13:17

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.000204	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000206	0.00100
Styrene	U		0.000234	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
Vinyl chloride	U		0.000291	0.00100
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	*102*			*80.0-120*
(S) Dibromofluoromethane	*90.6*			*74.0-131*
(S) 4-Bromofluorobenzene	*96.7*			*64.0-132*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3233561-2 07/13/17 14:46 • (LCSD) R3233561-3 07/13/17 15:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.144	0.182	115	146	11.0-160		J3	23.6	23
Acrylonitrile	0.125	0.122	0.150	97.5	120	61.0-143		J3	20.5	20
Benzene	0.0250	0.0232	0.0240	92.9	96.1	71.0-124			3.35	20
Bromobenzene	0.0250	0.0266	0.0274	106	110	78.0-120			2.92	20
Bromodichloromethane	0.0250	0.0257	0.0275	103	110	75.0-120			6.72	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3233561-2 07/13/17 14:46 • (LCSD) R3233561-3 07/13/17 15:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromoform	0.0250	0.0312	0.0356	125	142	65.0-133		J4	13.2	20
Bromomethane	0.0250	0.0274	0.0286	110	114	26.0-160			4.09	20
n-Butylbenzene	0.0250	0.0272	0.0276	109	110	73.0-126			1.33	20
sec-Butylbenzene	0.0250	0.0271	0.0286	108	114	75.0-121			5.39	20
tert-Butylbenzene	0.0250	0.0274	0.0289	110	116	74.0-122			5.49	20
Carbon tetrachloride	0.0250	0.0244	0.0243	97.7	97.4	66.0-123			0.350	20
Chlorobenzene	0.0250	0.0274	0.0277	110	111	79.0-121			1.10	20
Chlorodibromomethane	0.0250	0.0278	0.0294	111	118	74.0-128			5.72	20
Chloroethane	0.0250	0.0288	0.0309	115	123	51.0-147			6.91	20
Chloroform	0.0250	0.0225	0.0242	90.0	96.9	73.0-123			7.42	20
Chloromethane	0.0250	0.0175	0.0188	70.1	75.0	51.0-138			6.71	20
2-Chlorotoluene	0.0250	0.0261	0.0272	105	109	72.0-124			3.96	20
4-Chlorotoluene	0.0250	0.0269	0.0275	108	110	78.0-120			2.37	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0262	0.0330	105	132	65.0-126		J3 J4	23.2	20
1,2-Dibromoethane	0.0250	0.0284	0.0303	114	121	78.0-122			6.30	20
Dibromomethane	0.0250	0.0256	0.0289	103	116	79.0-120			12.1	20
1,2-Dichlorobenzene	0.0250	0.0275	0.0286	110	114	80.0-120			3.85	20
1,3-Dichlorobenzene	0.0250	0.0257	0.0271	103	108	72.0-123			5.27	20
1,4-Dichlorobenzene	0.0250	0.0269	0.0273	108	109	77.0-120			1.39	20
Dichlorodifluoromethane	0.0250	0.0158	0.0170	63.2	67.9	49.0-155			7.11	20
1,1-Dichloroethane	0.0250	0.0231	0.0245	92.3	98.2	70.0-128			6.16	20
1,2-Dichloroethane	0.0250	0.0246	0.0262	98.3	105	69.0-128			6.46	20
1,1-Dichloroethene	0.0250	0.0257	0.0282	103	113	63.0-131			9.27	20
cis-1,2-Dichloroethene	0.0250	0.0235	0.0250	94.0	100	74.0-123			6.23	20
trans-1,2-Dichloroethene	0.0250	0.0228	0.0247	91.0	98.8	72.0-122			8.23	20
1,2-Dichloropropane	0.0250	0.0250	0.0264	100	106	75.0-126			5.43	20
1,1-Dichloropropene	0.0250	0.0238	0.0241	95.2	96.4	72.0-130			1.24	20
1,3-Dichloropropane	0.0250	0.0282	0.0299	113	120	80.0-121			5.84	20
cis-1,3-Dichloropropene	0.0250	0.0259	0.0270	104	108	80.0-125			4.05	20
trans-1,3-Dichloropropene	0.0250	0.0270	0.0289	108	116	75.0-129			6.88	20
2,2-Dichloropropane	0.0250	0.0264	0.0269	106	108	60.0-129			1.77	20
Di-isopropyl ether	0.0250	0.0220	0.0242	87.9	96.8	62.0-133			9.64	20
Ethylbenzene	0.0250	0.0276	0.0272	110	109	77.0-120			1.25	20
Hexachloro-1,3-butadiene	0.0250	0.0263	0.0266	105	107	68.0-128			1.37	20
Isopropylbenzene	0.0250	0.0272	0.0283	109	113	75.0-120			3.77	20
p-Isopropyltoluene	0.0250	0.0264	0.0278	106	111	74.0-125			5.34	20
2-Butanone (MEK)	0.125	0.111	0.139	88.7	111	37.0-159		J3	22.7	20
Methylene Chloride	0.0250	0.0213	0.0238	85.2	95.4	67.0-123			11.2	20
4-Methyl-2-pentanone (MIBK)	0.125	0.123	0.164	98.7	131	60.0-144		J3	28.1	20
Methyl tert-butyl ether	0.0250	0.0226	0.0270	90.6	108	66.0-125			17.5	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3233561-2 07/13/17 14:46 • (LCSD) R3233561-3 07/13/17 15:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Naphthalene	0.0250	0.0258	0.0298	103	119	64.0-125			14.2	20
n-Propylbenzene	0.0250	0.0280	0.0289	112	116	78.0-120			3.09	20
Styrene	0.0250	0.0251	0.0254	100	102	78.0-124			1.13	20
1,1,1,2-Tetrachloroethane	0.0250	0.0271	0.0294	108	118	74.0-124			8.18	20
1,1,2,2-Tetrachloroethane	0.0250	0.0279	0.0328	111	131	73.0-120		J4	16.1	20
Tetrachloroethene	0.0250	0.0279	0.0275	112	110	70.0-127			1.46	20
Toluene	0.0250	0.0259	0.0264	103	106	77.0-120			2.01	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0263	0.0287	105	115	64.0-135			9.06	20
1,2,3-Trichlorobenzene	0.0250	0.0262	0.0289	105	115	68.0-126			9.75	20
1,2,4-Trichlorobenzene	0.0250	0.0251	0.0268	100	107	70.0-127			6.58	20
1,1,1-Trichloroethane	0.0250	0.0236	0.0253	94.6	101	69.0-125			6.76	20
1,1,2-Trichloroethane	0.0250	0.0291	0.0301	116	121	78.0-120		J4	3.63	20
Trichloroethene	0.0250	0.0257	0.0262	103	105	79.0-120			1.86	20
Trichlorofluoromethane	0.0250	0.0288	0.0304	115	122	59.0-136			5.53	20
1,2,3-Trichloropropane	0.0250	0.0293	0.0340	117	136	73.0-124		J4	14.6	20
1,2,3-Trimethylbenzene	0.0250	0.0265	0.0272	106	109	76.0-120			2.59	20
1,2,4-Trimethylbenzene	0.0250	0.0266	0.0279	106	112	75.0-120			4.85	20
1,3,5-Trimethylbenzene	0.0250	0.0266	0.0280	106	112	75.0-120			5.29	20
Vinyl chloride	0.0250	0.0220	0.0234	87.9	93.8	63.0-134			6.49	20
Xylenes, Total	0.0750	0.0825	0.0826	110	110	77.0-120			0.120	20
(S) Toluene-d8				*103*	*103*	*80.0-120*				
(S) Dibromofluoromethane				*90.2*	*94.1*	*74.0-131*				
(S) 4-Bromofluorobenzene				*95.3*	*96.7*	*64.0-132*				

L921949-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L921949-02 07/13/17 19:28 • (MS) R3233561-4 07/13/17 16:26 • (MSD) R3233561-5 07/13/17 16:46

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.155	ND	0.450	0.437	263	255	1	10.0-160	J5	J5	2.83	36
Acrylonitrile	0.155	ND	0.178	0.165	114	106	1	14.0-160			7.43	33
Benzene	0.0311	ND	0.0251	0.0205	80.8	65.9	1	13.0-146			20.2	27
Bromobenzene	0.0311	ND	0.0224	0.0157	72.1	50.5	1	10.0-149		J3	35.3	33
Bromodichloromethane	0.0311	ND	0.0290	0.0234	93.3	75.2	1	15.0-142			21.5	28
Bromoform	0.0311	ND	0.0366	0.0269	118	86.6	1	10.0-147			30.5	31
Bromomethane	0.0311	ND	0.0304	0.0263	97.7	84.6	1	10.0-160			14.4	32
n-Butylbenzene	0.0311	ND	0.0177	0.0108	57.1	34.9	1	10.0-154		J3	48.3	37
sec-Butylbenzene	0.0311	ND	0.0179	0.0119	57.7	38.3	1	10.0-151		J3	40.4	36
tert-Butylbenzene	0.0311	ND	0.0198	0.0137	63.8	44.1	1	10.0-152		J3	36.5	35

L921949-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L921949-02 07/13/17 19:28 • (MS) R3233561-4 07/13/17 16:26 • (MSD) R3233561-5 07/13/17 16:46

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Carbon tetrachloride	0.0311	ND	0.0240	0.0201	77.3	64.8	1	13.0-140			17.5	30
Chlorobenzene	0.0311	ND	0.0241	0.0178	77.5	57.2	1	10.0-149			30.1	31
Chlorodibromomethane	0.0311	ND	0.0308	0.0236	99.0	75.8	1	12.0-147			26.5	29
Chloroethane	0.0311	ND	0.0319	0.0289	103	92.9	1	10.0-159			9.93	33
Chloroform	0.0311	ND	0.0252	0.0212	81.2	68.1	1	18.0-148			17.5	28
Chloromethane	0.0311	ND	0.0184	0.0165	59.4	53.0	1	10.0-146			11.3	29
2-Chlorotoluene	0.0311	ND	0.0207	0.0141	66.6	45.5	1	10.0-151		J3	37.5	35
4-Chlorotoluene	0.0311	ND	0.0212	0.0144	68.3	46.2	1	10.0-150		J3	38.7	35
1,2-Dibromo-3-Chloropropane	0.0311	ND	0.0383	0.0252	123	81.1	1	10.0-149		J3	41.3	34
1,2-Dibromoethane	0.0311	ND	0.0323	0.0260	104	83.5	1	14.0-145			21.9	28
Dibromomethane	0.0311	ND	0.0328	0.0269	105	86.5	1	18.0-144			19.7	27
1,2-Dichlorobenzene	0.0311	ND	0.0225	0.0142	72.3	45.8	1	10.0-153		J3	44.9	34
1,3-Dichlorobenzene	0.0311	ND	0.0197	0.0125	63.4	40.1	1	10.0-150		J3	45.0	35
1,4-Dichlorobenzene	0.0311	ND	0.0219	0.0140	70.3	45.1	1	10.0-148		J3	43.8	34
Dichlorodifluoromethane	0.0311	ND	0.0182	0.0168	58.4	54.1	1	10.0-160			7.74	30
1,1-Dichloroethane	0.0311	ND	0.0250	0.0243	80.3	78.2	1	19.0-148			2.61	28
1,2-Dichloroethane	0.0311	ND	0.0300	0.0249	96.4	80.2	1	17.0-147			18.4	27
1,1-Dichloroethene	0.0311	ND	0.0287	0.0263	92.2	84.7	1	10.0-150			8.52	31
cis-1,2-Dichloroethene	0.0311	ND	0.0263	0.0235	84.5	75.7	1	16.0-145			10.9	28
trans-1,2-Dichloroethene	0.0311	ND	0.0250	0.0233	80.5	75.1	1	11.0-142			6.97	29
1,2-Dichloropropane	0.0311	ND	0.0275	0.0230	88.5	74.0	1	17.0-148			17.8	28
1,1-Dichloropropene	0.0311	ND	0.0246	0.0201	79.2	64.8	1	10.0-150			20.0	30
1,3-Dichloropropane	0.0311	ND	0.0313	0.0250	101	80.5	1	16.0-148			22.4	27
cis-1,3-Dichloropropene	0.0311	ND	0.0303	0.0239	97.6	76.9	1	13.0-150			23.7	28
trans-1,3-Dichloropropene	0.0311	ND	0.0325	0.0259	104	83.2	1	10.0-152			22.7	29
2,2-Dichloropropane	0.0311	ND	0.0268	0.0237	86.1	76.3	1	16.0-143			12.1	30
Di-isopropyl ether	0.0311	ND	0.0240	0.0232	77.2	74.7	1	16.0-149			3.34	28
Ethylbenzene	0.0311	ND	0.0227	0.0172	73.2	55.3	1	10.0-147			27.8	31
Hexachloro-1,3-butadiene	0.0311	ND	0.0145	0.00836	46.6	26.9	1	10.0-154		J3	53.7	40
Isopropylbenzene	0.0311	ND	0.0210	0.0151	67.6	48.5	1	10.0-147			33.0	33
p-Isopropyltoluene	0.0311	ND	0.0186	0.0121	59.7	38.9	1	10.0-156		J3	42.2	37
2-Butanone (MEK)	0.155	ND	0.170	0.139	109	89.3	1	10.0-160			19.9	33
Methylene Chloride	0.0311	ND	0.0245	0.0234	78.7	75.2	1	16.0-139			4.59	29
4-Methyl-2-pentanone (MIBK)	0.155	ND	0.235	0.192	151	124	1	12.0-160			20.3	32
Methyl tert-butyl ether	0.0311	ND	0.0303	0.0280	97.6	90.2	1	21.0-145			7.86	29
Naphthalene	0.0311	ND	0.0222	0.0101	71.3	32.4	1	10.0-153		J3	75.2	36
n-Propylbenzene	0.0311	ND	0.0208	0.0145	66.9	46.5	1	10.0-151		J3	36.0	34
Styrene	0.0311	ND	0.0204	0.0127	65.5	40.7	1	10.0-155		J3	46.7	34
1,1,1,2-Tetrachloroethane	0.0311	ND	0.0259	0.0200	83.3	64.3	1	10.0-147			25.7	30

L921949-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L921949-02 07/13/17 19:28 • (MS) R3233561-4 07/13/17 16:26 • (MSD) R3233561-5 07/13/17 16:46

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
1,1,2,2-Tetrachloroethane	0.0311	ND	0.0335	0.0250	108	80.4	1	10.0-155			29.3	31
Tetrachloroethene	0.0311	ND	0.0244	0.0189	78.3	60.7	1	10.0-144			25.4	32
Toluene	0.0311	ND	0.0262	0.0213	81.6	65.9	1	10.0-144			20.6	28
1,1,2-Trichlorotrifluoroethane	0.0311	ND	0.0279	0.0262	89.8	84.2	1	10.0-153			6.47	33
1,2,3-Trichlorobenzene	0.0311	ND	0.0178	0.00856	57.4	27.5	1	10.0-153		J3	70.2	40
1,2,4-Trichlorobenzene	0.0311	ND	0.0170	0.00846	54.8	27.2	1	10.0-156		J3	67.2	40
1,1,1-Trichloroethane	0.0311	ND	0.0248	0.0212	79.8	68.2	1	18.0-145			15.6	29
1,1,2-Trichloroethane	0.0311	ND	0.0314	0.0255	101	82.2	1	12.0-151			20.6	28
Trichloroethene	0.0311	ND	0.0264	0.0210	84.8	67.5	1	11.0-148			22.8	29
Trichlorofluoromethane	0.0311	ND	0.0331	0.0295	106	95.1	1	10.0-157			11.3	34
1,2,3-Trichloropropane	0.0311	ND	0.0361	0.0279	116	89.7	1	10.0-154			25.7	32
1,2,3-Trimethylbenzene	0.0311	ND	0.0217	0.0146	69.9	47.1	1	10.0-150		J3	39.0	33
1,2,4-Trimethylbenzene	0.0311	ND	0.0205	0.0138	65.8	44.4	1	10.0-151		J3	38.8	34
1,3,5-Trimethylbenzene	0.0311	ND	0.0199	0.0135	64.0	43.6	1	10.0-150		J3	38.0	33
Vinyl chloride	0.0311	ND	0.0234	0.0219	75.3	70.5	1	10.0-150			6.61	29
Xylenes, Total	0.0933	ND	0.0696	0.0510	74.7	54.7	1	10.0-150			30.9	31
(S) Toluene-d8					*103*	*105*		*80.0-120*				
(S) Dibromofluoromethane					*99.9*	*98.1*		*74.0-131*				
(S) 4-Bromofluorobenzene					*92.9*	*94.9*		*64.0-132*				

Method Blank (MB)

(MB) R3234000-3 07/13/17 23:43

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000270	0.00100
Ethylbenzene	U		0.000297	0.00100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000434	0.00500
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	*104*			*80.0-120*
(S) Dibromofluoromethane	*91.1*			*74.0-131*
(S) a,a,a-Trifluorotoluene	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*92.7*			*64.0-132*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3234000-1 07/13/17 22:36 • (LCSD) R3234000-2 07/13/17 22:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0222	0.0207	88.7	82.8	71.0-124			6.83	20
Ethylbenzene	0.0250	0.0257	0.0242	103	96.7	77.0-120			6.06	20
Naphthalene	0.0250	0.0236	0.0219	94.6	87.7	64.0-125			7.51	20
Toluene	0.0250	0.0248	0.0232	99.1	92.9	77.0-120			6.51	20
Xylenes, Total	0.0750	0.0784	0.0729	105	97.2	77.0-120			7.27	20
(S) Toluene-d8				*101*	*99.1*	*80.0-120*				
(S) Dibromofluoromethane				*90.6*	*91.7*	*74.0-131*				
(S) a,a,a-Trifluorotoluene				*104*	*105*	*80.0-120*				
(S) 4-Bromofluorobenzene				*89.7*	*89.4*	*64.0-132*				

L921571-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L921571-02 07/14/17 00:50 • (MS) R3234000-4 07/14/17 08:39 • (MSD) R3234000-5 07/14/17 09:02

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0322	U	2.03	1.96	63.1	60.8	100	13.0-146			3.67	27
Ethylbenzene	0.0322	0.311	2.65	2.27	72.6	60.8	100	10.0-147			15.5	31
Naphthalene	0.0322	6.80	13.5	13.1	208	195	100	10.0-153	J5	J5	3.16	36
Toluene	0.0322	U	2.15	1.87	66.8	58.2	100	10.0-144			13.8	28
Xylenes, Total	0.0965	U	7.13	6.25	73.9	64.8	100	10.0-150			13.1	31
(S) Toluene-d8					*95.8*	*82.2*		*80.0-120*				
(S) Dibromofluoromethane					*89.9*	*87.9*		*74.0-131*				
(S) a,a,a-Trifluorotoluene					*98.9*	*101*		*80.0-120*				

L921571-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L921571-02 07/14/17 00:50 • (MS) R3234000-4 07/14/17 08:39 • (MSD) R3234000-5 07/14/17 09:02

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
(S) 4-Bromofluorobenzene					*102*	*104*		*64.0-132*				

Sample Narrative:

OS: Non-target compounds too high to run at a lower dilution.

Method Blank (MB)

(MB) R3234099-1 07/18/17 10:49

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Extractable Petroleum Hydrocarbon	U		1.05	4.00
(S) o-Terphenyl	*84.7*			*18.0-148*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3234099-2 07/18/17 11:03 • (LCSD) R3234099-3 07/18/17 11:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Extractable Petroleum Hydrocarbon	60.0	39.1	39.4	65.1	65.6	50.0-150			0.800	20
(S) o-Terphenyl				*87.2*	*86.2*	*18.0-148*				

Method Blank (MB)

(MB) R3234081-1 07/15/17 12:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
PCB 1016	U		0.00350	0.0170
PCB 1221	U		0.00537	0.0170
PCB 1232	U		0.00417	0.0170
PCB 1242	U		0.00318	0.0170
PCB 1248	U		0.00315	0.0170
PCB 1254	U		0.00472	0.0170
PCB 1260	U		0.00494	0.0170
(S) Decachlorobiphenyl	*106*			*10.0-148*
(S) Tetrachloro-m-xylene	*90.8*			*21.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3234081-2 07/15/17 12:29 • (LCSD) R3234081-3 07/15/17 12:45

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
PCB 1260	0.167	0.165	0.174	98.9	105	37.0-145			5.62	37
PCB 1016	0.167	0.150	0.155	89.8	93.1	36.0-141			3.69	35
(S) Decachlorobiphenyl				*110*	*113*	*10.0-148*				
(S) Tetrachloro-m-xylene				*94.9*	*96.9*	*21.0-146*				

L922006-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L922006-01 07/15/17 16:17 • (MS) R3234081-4 07/15/17 16:33 • (MSD) R3234081-5 07/15/17 16:49

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
PCB 1260	0.167	ND	0.284	0.351	170	211	1	10.0-160	J5	J5 P	21.1	31
PCB 1016	0.167	ND	0.311	0.302	187	181	1	17.0-160	J5	J5 P	3.03	30
(S) Decachlorobiphenyl					*64.6*	*57.8*		*10.0-148*				
(S) Tetrachloro-m-xylene					*64.1*	*54.9*		*21.0-146*				

Method Blank (MB)

(MB) R3233682-3 07/14/17 14:43

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00642	0.0330
Acenaphthylene	U		0.00671	0.0330
Anthracene	U		0.00632	0.0330
Benzidine	U		0.0637	0.333
Benzo(a)anthracene	U		0.00428	0.0330
Benzo(b)fluoranthene	U		0.00695	0.0330
Benzo(k)fluoranthene	U		0.00582	0.0330
Benzo(g,h,i)perylene	U		0.00721	0.0330
Benzo(a)pyrene	U		0.00548	0.0330
Bis(2-chlorethoxy)methane	U		0.00770	0.333
Bis(2-chloroethyl)ether	U		0.00896	0.333
Bis(2-chloroisopropyl)ether	U		0.00760	0.333
4-Bromophenyl-phenylether	U		0.0114	0.333
2-Chloronaphthalene	U		0.00639	0.0330
4-Chlorophenyl-phenylether	U		0.00627	0.333
Chrysene	U		0.00555	0.0330
Dibenz(a,h)anthracene	U		0.00821	0.0330
3,3-Dichlorobenzidine	U		0.0794	0.333
2,4-Dinitrotoluene	U		0.00607	0.333
2,6-Dinitrotoluene	U		0.00737	0.333
Fluoranthene	U		0.00496	0.0330
Fluorene	U		0.00682	0.0330
Hexachlorobenzene	U		0.00856	0.333
Hexachloro-1,3-butadiene	U		0.0100	0.333
Hexachlorocyclopentadiene	U		0.0587	0.333
Hexachloroethane	U		0.0134	0.333
Indeno(1,2,3-cd)pyrene	U		0.00772	0.0330
Isophorone	U		0.00522	0.333
Naphthalene	U		0.00889	0.0330
Nitrobenzene	U		0.00695	0.333
n-Nitrosodimethylamine	U		0.0647	0.333
n-Nitrosodiphenylamine	U		0.00594	0.333
n-Nitrosodi-n-propylamine	U		0.00906	0.333
Phenanthrene	U		0.00528	0.0330
Benzylbutyl phthalate	U		0.0103	0.333
Bis(2-ethylhexyl)phthalate	0.0164	J	0.0120	0.333
Di-n-butyl phthalate	U		0.0109	0.333
Diethyl phthalate	U		0.00691	0.333
Dimethyl phthalate	U		0.00540	0.333
Di-n-octyl phthalate	U		0.00907	0.333

Method Blank (MB)

(MB) R3233682-3 07/14/17 14:43

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Pyrene	U		0.0123	0.0330
1,2,4-Trichlorobenzene	U		0.00876	0.333
4-Chloro-3-methylphenol	U		0.00477	0.333
2-Chlorophenol	U		0.00831	0.333
2,4-Dichlorophenol	U		0.00746	0.333
2,4-Dimethylphenol	U		0.0471	0.333
4,6-Dinitro-2-methylphenol	U		0.124	0.333
2,4-Dinitrophenol	U		0.0980	0.333
2-Nitrophenol	U		0.0130	0.333
4-Nitrophenol	U		0.0525	0.333
Pentachlorophenol	U		0.0480	0.333
Phenol	U		0.00695	0.333
2,4,6-Trichlorophenol	U		0.00779	0.333
(S) Nitrobenzene-d5	*63.2*			*18.0-125*
(S) 2-Fluorobiphenyl	*65.0*			*28.0-120*
(S) p-Terphenyl-d14	*56.9*			*13.0-131*
(S) Phenol-d5	*62.6*			*20.0-120*
(S) 2-Fluorophenol	*67.9*			*20.0-120*
(S) 2,4,6-Tribromophenol	*69.6*			*17.0-137*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3233682-1 07/14/17 13:50 • (LCSD) R3233682-2 07/14/17 14:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.667	0.490	0.425	73.5	63.7	47.0-120			14.1	21
Acenaphthylene	0.667	0.527	0.462	79.0	69.3	48.0-120			13.1	21
Anthracene	0.667	0.513	0.465	76.9	69.7	46.0-120			9.80	20
Benzidine	0.667	ND	ND	0.000	0.000	1.00-120	J4	J4	0.000	36
Benzo(a)anthracene	0.667	0.530	0.470	79.5	70.5	46.0-120			12.1	20
Benzo(b)fluoranthene	0.667	0.537	0.504	80.4	75.6	45.0-120			6.18	22
Benzo(k)fluoranthene	0.667	0.499	0.468	74.8	70.2	45.0-120			6.41	23
Benzo(g,h,i)perylene	0.667	0.566	0.518	84.8	77.7	48.0-120			8.78	21
Benzo(a)pyrene	0.667	0.534	0.481	80.0	72.1	46.0-120			10.5	21
Bis(2-chlorethoxy)methane	0.667	0.331	0.308	49.6	46.1	41.0-120			7.25	22
Bis(2-chloroethyl)ether	0.667	0.408	0.397	61.2	59.5	28.0-120			2.66	28
Bis(2-chloroisopropyl)ether	0.667	0.388	0.376	58.2	56.3	40.0-120			3.22	27
4-Bromophenyl-phenylether	0.667	0.505	0.464	75.7	69.6	45.0-120			8.39	20
2-Chloronaphthalene	0.667	0.470	0.408	70.4	61.2	43.0-120			14.1	22

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3233682-1 07/14/17 13:50 • (LCSD) R3233682-2 07/14/17 14:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Chlorophenyl-phenylether	0.667	0.473	0.423	70.9	63.4	46.0-120			11.3	21
Chrysene	0.667	0.516	0.466	77.4	69.9	46.0-120			10.3	20
Dibenz(a,h)anthracene	0.667	0.570	0.520	85.4	78.0	47.0-120			9.09	22
3,3-Dichlorobenzidine	0.667	0.422	0.406	63.2	60.8	20.0-130			3.88	24
2,4-Dinitrotoluene	0.667	0.518	0.476	77.6	71.3	48.0-122			8.46	21
2,6-Dinitrotoluene	0.667	0.497	0.446	74.5	66.9	46.0-120			10.8	21
Fluoranthene	0.667	0.513	0.470	76.8	70.5	46.0-120			8.61	20
Fluorene	0.667	0.505	0.436	75.7	65.4	47.0-120			14.5	20
Hexachlorobenzene	0.667	0.540	0.479	81.0	71.8	42.0-120			12.1	20
Hexachloro-1,3-butadiene	0.667	0.339	0.342	50.8	51.3	36.0-120			0.860	26
Hexachlorocyclopentadiene	0.667	0.271	0.240	40.6	35.9	20.0-124			12.2	26
Hexachloroethane	0.667	0.375	0.360	56.2	54.0	32.0-120			4.10	31
Indeno(1,2,3-cd)pyrene	0.667	0.566	0.519	84.9	77.7	48.0-120			8.75	21
Isophorone	0.667	0.365	0.351	54.7	52.6	42.0-120			3.85	21
Naphthalene	0.667	0.355	0.337	53.2	50.5	41.0-120			5.26	24
Nitrobenzene	0.667	0.364	0.335	54.6	50.2	36.0-120			8.25	24
n-Nitrosodimethylamine	0.667	0.543	0.510	81.4	76.4	20.0-120			6.28	31
n-Nitrosodiphenylamine	0.667	0.502	0.462	75.3	69.2	42.0-120			8.39	20
n-Nitrosodi-n-propylamine	0.667	0.448	0.426	67.1	63.8	39.0-120			5.04	23
Phenanthrene	0.667	0.497	0.456	74.5	68.4	45.0-120			8.53	20
Benzylbutyl phthalate	0.667	0.512	0.483	76.8	72.3	41.0-123			6.02	20
Bis(2-ethylhexyl)phthalate	0.667	0.504	0.463	75.6	69.4	41.0-124			8.61	20
Di-n-butyl phthalate	0.667	0.530	0.484	79.5	72.6	44.0-120			9.15	20
Diethyl phthalate	0.667	0.519	0.455	77.9	68.2	46.0-120			13.3	20
Dimethyl phthalate	0.667	0.508	0.442	76.2	66.3	47.0-120			13.8	21
Di-n-octyl phthalate	0.667	0.495	0.458	74.2	68.6	40.0-123			7.80	21
Pyrene	0.667	0.536	0.487	80.4	73.1	45.0-120			9.55	21
1,2,4-Trichlorobenzene	0.667	0.352	0.338	52.8	50.7	40.0-120			4.21	25
4-Chloro-3-methylphenol	0.667	0.368	0.345	55.1	51.7	46.0-120			6.49	20
2-Chlorophenol	0.667	0.469	0.456	70.4	68.4	37.0-120			2.81	27
2,4-Dichlorophenol	0.667	0.404	0.374	60.5	56.1	45.0-120			7.63	21
2,4-Dimethylphenol	0.667	0.381	0.354	57.1	53.1	40.0-120			7.26	22
4,6-Dinitro-2-methylphenol	0.667	0.393	0.308	58.9	46.2	34.0-120		J3	24.2	23
2,4-Dinitrophenol	0.667	0.267	0.198	40.0	29.7	10.0-120			29.7	30
2-Nitrophenol	0.667	0.360	0.332	54.0	49.7	42.0-120			8.21	24
4-Nitrophenol	0.667	0.485	0.429	72.8	64.3	40.0-120			12.4	21
Pentachlorophenol	0.667	0.425	0.367	63.8	55.1	33.0-122			14.6	22
Phenol	0.667	0.443	0.423	66.4	63.4	38.0-120			4.61	25
2,4,6-Trichlorophenol	0.667	0.509	0.454	76.3	68.1	47.0-120			11.3	22
(S) Nitrobenzene-d5				*54.9*	*52.3*	*18.0-125*				

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3233682-1 07/14/17 13:50 • (LCSD) R3233682-2 07/14/17 14:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
(S) 2-Fluorobiphenyl				*70.4*	*62.8*	*28.0-120*				
(S) p-Terphenyl-d14				*66.9*	*59.9*	*13.0-131*				
(S) Phenol-d5				*67.3*	*63.9*	*20.0-120*				
(S) 2-Fluorophenol				*70.5*	*68.2*	*20.0-120*				
(S) 2,4,6-Tribromophenol				*86.9*	*76.0*	*17.0-137*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
P	RPD between the primary and confirmatory analysis exceeded 40%.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

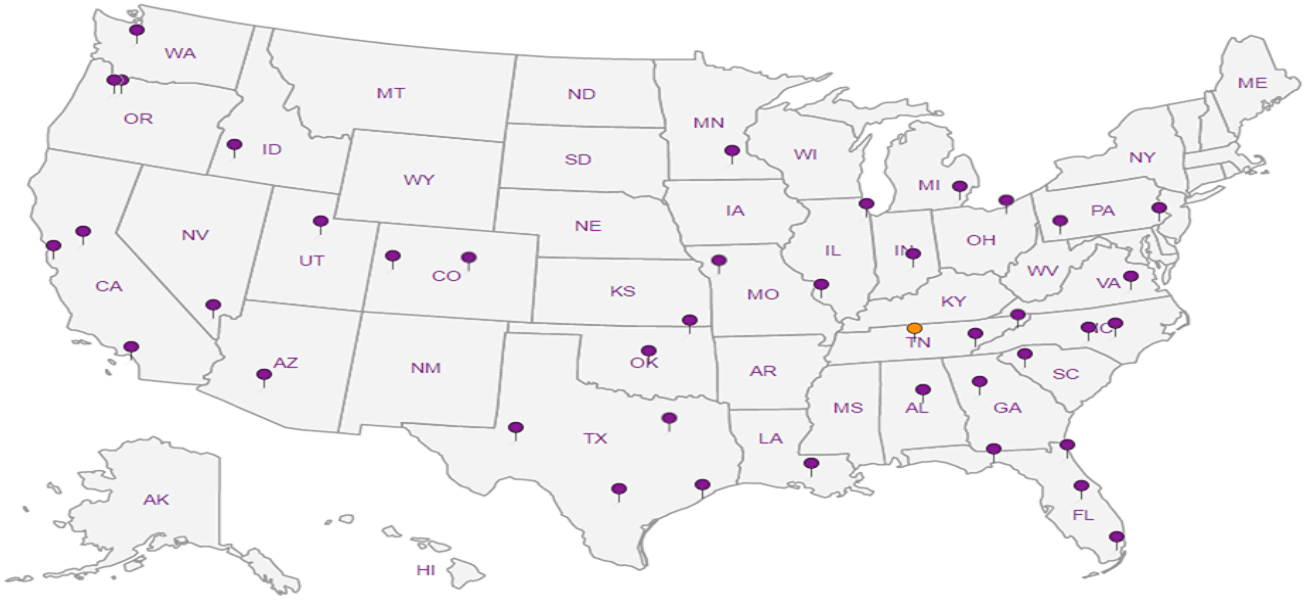
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Chain of Custody

Page ___ of ___

ESC LABS

YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 92 1869

B107

Acctnum: EARTHTN
Template: T125371
Prelogin: P608148
TSR: 034 - Craig Cothron
PB: 7.3.17 CM

Shipped Via: FedEX Ground

Earth Science Engineering
201 West Dunbar Cave Rd.
Clarksville, TN 37040

Billing Information:
Mr. Chris Casteel
201 West Dunbar Cave Rd.
Clarksville, TN 37040

Pres Chk

Report to: Mr. Chris Casteel

Email To: chris@eseng.us

Project Description: 5701 Robertson Ave

City/State Collected: Nashville, TN

Phone: 931-645-8008
Fax:

Client Project # 75935

Lab Project #

Collected by (print): Shannon Medina

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CR6 4ozClr-NoPres	EPHTN 4ozClr-NoPres	MRCRA8 2ozClr-NoPres	PBICP 2ozClr-NoPres	SV8082/SV8270 4ozClr-NoPres	V8260 2ozClr-NoPres	V8260BTEXN 2ozClr-NoPres	Remarks	Sample # (lab only)
R-3		SS	0-4	7-10	428	3		X		X			X		01
R-5		SS	0-4	7-10	431	4	X		X		X	X			02

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 7372 1964 5778

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 9.9 °C Bottles Received: 6 402

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
SP10

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	7/10/2017	440 PM	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Marina Melton

Date: 7/11-17 Time: 0845

ESC Lab Sciences
Non-Conformance Form

Login # 92186S	Client: EARTHTN	Date:7/11	Evaluated by:Matt S

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time		Login Clarification Needed		**If Broken Container:**
x	Improper temperature		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	Improper preservation		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Courie
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments: Received @ 9.9 degrees. All ice melted

Client informed by:		Call		Email	x	Voice Mail		Date:7/12/17	Time:1203
TSR Initials:cc	Client Contact: Chris Casteel								

Login Instructions:

Run as received.