MSD

January 14, 2008

Mr. Femi Akindele
Remedial Project Manager
Kentucky/Tennessee Section
U.S. Environmental Protection Agency
REGION IV
61 Forsyth Street
ATLANTA, GA 30303

Re: Sampling Event # 33, Result of Groundwater Quality Monitoring - FY 08, First Quarter (FY08-2Qt), Lees Lane Superfund Site, Jefferson County, Kentucky, Administrative Order on Consent, USEPA Docket No-91-32-C

Dear Mr. Akindele

In accordance with paragraph 11, under Reporting Requirements, of the subject Consent Order and Attachment 1, Operation and Maintenance Plan For Post-Removal Site Control at the Lee's Lane Landfill Site. Section 4.4, Groundwater Quality Monitoring, attached for your information files is one photocopy each of the following analyses and reports prepared by Heritage Laboratories, Inc., 7901 W. Morris Street, Indianapolis, Indiana 46231 for MSD.

The data package contains all of the analytical results and Quality Assurance reports for samples relating to the event.

Certificate of Analysis

WELL LOCATION	SAMPLE DESCRIPTION	LAB ID	REPORT LENGTH
MW-04	LL-MW-04-31	A790958	10 pages (duplex)
MW-05	LL-MW-05-31	A790960	10 pages (duplex)
Duplicate	LL-MW-04-31DUP	A790959	10 pages (duplex

10862975

Quality Assurance Reports

DESCRIPTION	REPORT LENGTH
Quality Assurance Report	58 pages (duplex)
Chain of Custody (COPY)	1 page

The above identified Certificate of Analysis and Quality Assurance Reports were received by the undersigned on January 10, 2008 and transmitted within the five (5) working day requirement of Paragraph 11of the Consent Order.

Please advise if you have any questions concerning the attached information.

Sincerely,

Richard H. Watkins, Sr.
Infrastructure Liaison
RHW/rw
Lees-08-2Qtr

Enc.

cc: Kentucky National Resource Environment Protection Cabinet
Mr. Ken G. Logsdon, Division of Waste Management
H. J. Schardein, Jr., Executive Director
Lees Lane File

bc: M. Griffith

CERTIFICATE OF ANALYSIS

Service Location

HERITAGE ENVIRONMENTAL SERVICES, LLC
COMMERCIAL LABORATORY OPERATIONS
7901 W. MORRIS ST.
INDIANAPOLIS, IN 46231
(317)243-8304

Received	Project	Lab ID
04-DEC-07		A790958
Completed	**PO Number**	
26-DEC-07	..	
Printed	**Sampled**	
27-DEC-07	04-DEC-07 10:05	

Report To

RICHARD H. WATKIN SR.
LOUISVILLE AND JEFFERSON COUNTY MSD
3050 COMMERCE CENTER PLACE
LOUISVILLE, KY 40211

Bill To

RICK WATKINS
LOUISVILLE & JEFFERSON COUNTY M.S.D.
3050 COMMERCE CENTER PLACE
LOUISVILLE, KY 40211

Sample Description

CLIENT ID: MW-04-31
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER CODE: 4217
LOCATION: LEES LANE - ANNUAL EVENT
WELL NUMBER: GROUNDWATER

HEXAVALENT CHROMIUM SW846-7196A NELAC:Y

Analyst: S. BOXUM Analysis Date: 05-DEC-07 09:10 Test: M110.6.0

Parameter	Result	Det. Limit	Units
HEXAVALENT CHROMIUM	BDL	0.01	mg/L

GC PESTICIDE SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

Analyst: B. VANSLAVENS Analysis Date: 06-DEC-07 Instrument: PREP Test: P233.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	10		mL

PCB/PESTICIDE SCAN GC:ECD SW846-8081 NELAC:Y

Analyst: D. EISELE Analysis Date: 13-DEC-07 10:55 Instrument: GC/ECD Test: O305.1.0

Prep: GC PESTICIDE SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C P233.1.0

Parameter	Result	Det. Limit	Units
ALPHA-BHC	BDL	0.05	ug/L
BETA-BHC	BDL	0.05	ug/L
DELTA-BHC	BDL	0.05	ug/L
GAMMA-BHC (LINDANE)	BDL	0.05	ug/L
HEPTACHLOR	BDL	0.05	ug/L
ALDRIN	BDL	0.05	ug/L
HEPTACHLOR EPOXIDE	BDL	0.05	ug/L
ENDOSULFAN I	BDL	0.05	ug/L
DIELDRIN	BDL	0.1	ug/L
4,4'-DDE	BDL	0.1	ug/L
ENDRIN	BDL	0.1	ug/L

ENDOSULFAN II	BDL	0.1	ug/L
4,4'-DDD	BDL	0.1	ug/L
ENDOSULFAN SULFATE	BDL	0.1	ug/L
4,4'-DDT	BDL	0.1	ug/L
METHOXYCHLOR	BDL	0.5	ug/L
ENDRIN ALDEHYDE	BDL	0.1	ug/L
ENDRIN KETONE	BDL	0.1	ug/L
ALPHA-CHLORDANE	BDL	0.5	ug/L
GAMMA-CHLORDANE	BDL	0.5	ug/L
TOXAPHENE	BDL	1	ug/L
PCB AROCLOR 1016	BDL	0.5	ug/L
PCB AROCLOR 1221	BDL	0.5	ug/L
PCB AROCLOR 1232	BDL	0.5	ug/L
PCB AROCLOR 1242	BDL	0.5	ug/L
PCB AROCLOR 1248	BDL	0.5	ug/L
PCB AROCLOR 1254	BDL	0.5	ug/L
PCB AROCLOR 1260	BDL	0.5	ug/L

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SURROGATE RECOVERY

DECACHLOROBIPHENYL (DCB)	128.2	% Rec

CYANIDE DISTILLATION SW846-9012B

Analyst: G. COOPER — Analysis Date: 11-DEC-07 09:30 — Instrument: PREP — Test: P101.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	6		mL
FINAL VOLUME	6		mL

CYANIDE, TOTAL (AUTOMATED) SW846-9012B — NELAC:Y

Analyst: E. SOTKIEWICZ — Analysis Date: 11-DEC-07 12:00 — Instrument: AUTO-ANALYZER — Test: G101.4.0

Prep: CYANIDE DISTILLATION SW846-9012B P101.4.0

Parameter	Result	Det. Limit	Units
CYANIDE	BDL	0.005	mg/L

FIELD FILTRATION SAS

Analysis Date: — Instrument: FIELD — Test: P110.0.0

Parameter	Result	Det. Limit	Units

LEAD TRACE ICP SW846-6010B — NELAC:Y

Analyst: J. KRAMER — Analysis Date: 09-DEC-07 16:49 — Instrument: TRACE ICP — Test: M116.0.1

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units

LEAD	BDL	0.0050	mg/L

FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

Analyst: P. MATAKA Analysis Date: 07-DEC-07 09:00 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL WEIGHT OR VOLUME	50		mL

ALUMINUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 08-DEC-07 05:21 Instrument: ICP Test: M101.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ALUMINUM	BDL	0.050	mg/L

ANTIMONY ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 08-DEC-07 05:21 Instrument: ICP Test: M102.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.010	mg/L

BARIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 08-DEC-07 05:21 Instrument: ICP Test: M104.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
BARIUM	0.14	0.010	mg/L

BERYLLIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 08-DEC-07 05:21 Instrument: ICP Test: M105.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.0040	mg/L

CADMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 08-DEC-07 05:21 Instrument: ICP Test: M108.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0050	mg/L

CALCIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 01:44 Instrument: ICP Test: M109.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	110	0.10	mg/L

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A790958 MW-04-31

CHROMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 08-DEC-07 05:21 Instrument: ICP Test: M110.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COBALT ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 08-DEC-07 05:21 Instrument: ICP Test: M111.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.010	mg/L

COPPER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 08-DEC-07 05:21 Instrument: ICP Test: M112.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.010	mg/L

IRON ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 08-DEC-07 05:21 Instrument: ICP Test: M115.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
IRON	7.4	0.020	mg/L

MAGNESIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 08-DEC-07 05:21 Instrument: ICP Test: M118.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	37	0.10	mg/L

MANGANESE ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 08-DEC-07 05:21 Instrument: ICP Test: M119.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.15	0.010	mg/L

NICKEL ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 08-DEC-07 05:21 Instrument: ICP Test: M122.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
NICKEL	0.0051	0.0050	mg/L

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A790958 MW-04-31

POTASSIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 08-DEC-07 05:21 Instrument: ICP Test: M126.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
POTASSIUM	2.4	0.10	mg/L

SILVER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 08-DEC-07 05:21 Instrument: ICP Test: M130.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.010	mg/L

SODIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 08-DEC-07 05:21 Instrument: ICP Test: M131.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
SODIUM	28	0.10	mg/L

VANADIUM ICP SW846-6010B NELAC:N

Analyst: J. KRAMER Analysis Date: 08-DEC-07 05:21 Instrument: ICP Test: M138.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.010	mg/L

ZINC ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 01:44 Instrument: ICP Test: M139.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

ARSENIC TRACE ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 20:30 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.011	0.0050	mg/L

LEAD TRACE ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 20:30 Instrument: TRACE ICP Test: M116.0.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.0050	mg/L

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A790958 MW-04-31

SELENIUM TRACE ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 20:30 Instrument: TRACE ICP Test: M128.0.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.0050	mg/L

THALLIUM TRACE ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 20:30 Instrument: TRACE ICP Test: M134.0.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.010	mg/L

MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A

Analyst: S. O'NEAL Analysis Date: 20-DEC-07 13:00 Instrument: PREP Test: P131.6.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA SW846-7470A NELAC:Y

Analyst: S. O'NEAL Analysis Date: 21-DEC-07 11:48 Instrument: CVAA Test: M120.1.0

Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A P131.6.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

Analyst: J. MINNIEAR, II Analysis Date: 06-DEC-07 Instrument: PREP Test: P233.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	1.0		mL

SEMI-VOLATILE ORGANICS (BASE/NEUTRAL/ACID FRACTIONS) SW846-8270C NELAC:Y

Analyst: J. MINNIEAR, II Analysis Date: 07-DEC-07 18:48 Instrument: GC/MS SVOA Test: O505.3.0

Prep: GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C P233.4.0

Parameter	Result	Det. Limit	Units
ACENAPHTHENE	BDL	10	ug/L
ACENAPHTHYLENE	BDL	10	ug/L
ANTHRACENE	BDL	10	ug/L
BENZ(A)ANTHRACENE	BDL	10	ug/L
BENZO(A)PYRENE	BDL	10	ug/L
BENZO(B)FLUORANTHENE	BDL	10	ug/L
BENZO(G,H,I)PERYLENE	BDL	10	ug/L
BENZO(K)FLUORANTHENE	BDL	10	ug/L
BENZYL ALCOHOL	BDL	10	ug/L

BENZYLBUTYLPHTHALATE	BDL	10	ug/L
BIS(2-CHLOROETHOXY)METHANE	BDL	10	ug/L
BIS(2-CHLOROETHYL)ETHER	BDL	10	ug/L
BIS(2-CHLOROISOPROPYL)ETHER	BDL	10	ug/L
BIS(2-ETHYLHEXYL)PHTHALATE	BDL	10	ug/L
4-BROMOPHENYLPHENYLETHER	BDL	10	ug/L
CARBAZOLE	BDL	10	ug/L
4-CHLOROANILINE	BDL	10	ug/L
2-CHLORONAPHTHALENE	BDL	10	ug/L
4-CHLOROPHENYLPHENYLETHER	BDL	10	ug/L
CHRYSENE	BDL	10	ug/L
DIBENZ(A,H)ANTHRACENE	BDL	10	ug/L
DIBENZOFURAN	BDL	10	ug/L
1,2-DICHLOROBENZENE	BDL	10	ug/L
1,3-DICHLOROBENZENE	BDL	10	ug/L
1,4-DICHLOROBENZENE	BDL	10	ug/L
3,3'-DICHLOROBENZIDINE	BDL	20	ug/L
DIETHYLPHTHALATE	BDL	10	ug/L
DIMETHYLPHTHALATE	BDL	10	ug/L
DI-N-BUTYLPHTHALATE	BDL	10	ug/L
DINITROBENZENES	BDL	50	ug/L
2,4-DINITROTOLUENE	BDL	10	ug/L
2,6-DINITROTOLUENE	BDL	10	ug/L
DI-N-OCTYLPHTHALATE	BDL	10	ug/L
FLUORANTHENE	BDL	10	ug/L
FLUORENE	BDL	10	ug/L
HEXACHLOROBENZENE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	10	ug/L
HEXACHLOROCYCLOPENTADIENE	BDL	10	ug/L
HEXACHLOROETHANE	BDL	10	ug/L
INDENO(1,2,3-CD)PYRENE	BDL	10	ug/L
ISOPHORONE	BDL	10	ug/L
2-METHYLNAPHTHALENE	BDL	10	ug/L
NAPHTHALENE	BDL	10	ug/L
2-NITROANILINE	BDL	50	ug/L
3-NITROANILINE	BDL	50	ug/L
4-NITROANILINE	BDL	50	ug/L
NITROBENZENE	BDL	10	ug/L
N-NITROSO-DIPHENYLAMINE	BDL	10	ug/L
N-NITROSO-DI-N-PROPYLAMINE	BDL	10	ug/L
PHENANTHRENE	BDL	10	ug/L

2-PICOLINE	BDL	50	ug/L
PYRENE	BDL	10	ug/L
PYRIDINE	BDL	50	ug/L
1,2,4,5-TETRACHLOROBENZENE	BDL	10	ug/L
TOLUENEDIAMINE	BDL	50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	10	ug/L
BENZOIC ACID	BDL	50	ug/L
4-CHLORO-3-METHYLPHENOL	BDL	10	ug/L
2-CHLOROPHENOL	BDL	10	ug/L
2,4-DICHLOROPHENOL	BDL	10	ug/L
2,4-DIMETHYLPHENOL	BDL	10	ug/L
4,6-DINITRO-2-METHYLPHENOL	BDL	50	ug/L
2,4-DINITROPHENOL	BDL	50	ug/L
2-METHYLPHENOL	BDL	10	ug/L
4-METHYLPHENOL	BDL	10	ug/L
2-NITROPHENOL	BDL	10	ug/L
4-NITROPHENOL	BDL	50	ug/L
PENTACHLOROPHENOL	BDL	50	ug/L
PHENOL	BDL	10	ug/L
1,2,4,5-TETRACHLOROBENZENE	BDL	10	ug/L
2,4,5-TRICHLOROPHENOL	BDL	50	ug/L
2,4,6-TRICHLOROPHENOL	BDL	10	ug/L

SURROGATE RECOVERY

2-FLUOROPHENOL	49	% Rec
PHENOL-D5	33	% Rec
NITROBENZENE-D5	85	% Rec
2-FLUOROBIPHENYL	78	% Rec
2,4,6-TRIBROMOPHENOL	78	% Rec
TERPHENYL-D14	55	% Rec

25 ML PURGE - VOLATILE ORGANICS SW846-8260B NELAC:Y

Analyst: R. SHAMP Analysis Date: 07-DEC-07 12:02 Instrument: GC/MS VOA Test: O510.7.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	1.0	ug/L
BROMOBENZENE	BDL	1.0	ug/L
BROMOCHLOROMETHANE	BDL	1.0	ug/L
BROMODICHLOROMETHANE	BDL	1.0	ug/L
BROMOFORM	BDL	1.0	ug/L
BROMOMETHANE	BDL	1.0	ug/L

N-BUTYLBENZENE	BDL	1.0	ug/L
SEC-BUTYLBENZENE	BDL	1.0	ug/L
TERT-BUTYLBENZENE	BDL	1.0	ug/L
CARBON TETRACHLORIDE	BDL	1.0	ug/L
CHLOROBENZENE	BDL	1.0	ug/L
DIBROMOCHLOROMETHANE	BDL	1.0	ug/L
CHLOROETHANE	BDL	1.0	ug/L
CHLOROFORM	BDL	1.0	ug/L
CHLOROMETHANE	BDL	1.0	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	1.0	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	1.0	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	1.0	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	1.0	ug/L
DIBROMOMETHANE	BDL	1.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	1.0	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	1.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	1.0	ug/L
DICHLORODIFLUOROMETHANE	BDL	1.0	ug/L
1,1-DICHLOROETHANE	BDL	1.0	ug/L
1,2-DICHLOROETHANE	BDL	1.0	ug/L
1,1-DICHLOROETHENE	BDL	1.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	1.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	1.0	ug/L
1,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,3-DICHLOROPROPANE	BDL	1.0	ug/L
2,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,1-DICHLOROPROPENE	BDL	1.0	ug/L
ETHYL BENZENE	BDL	1.0	ug/L
HEXACHLOROBUTADIENE	BDL	1.0	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	1.0	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	1.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	1.0	ug/L
METHYL ETHYL KETONE	BDL	5.0	ug/L
NAPHTHALENE	BDL	1.0	ug/L
N-PROPYLBENZENE	BDL	1.0	ug/L
STYRENE	BDL	1.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	1.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	1.0	ug/L
TETRACHLOROETHENE	BDL	1.0	ug/L
TOLUENE	BDL	1.0	ug/L
1,2,3-TRICHLOROBENZENE	BDL	1.0	ug/L

1,2,4-TRICHLOROBENZENE	BDL	1.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	1.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	1.0	ug/L
TRICHLOROETHENE	BDL	1.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	1.0	ug/L
1,2,3-TRICHLOROPROPANE	BDL	1.0	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	1.0	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	1.0	ug/L
VINYL CHLORIDE	BDL	1.0	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	1.0	ug/L
N-HEXANE	BDL	1.0	ug/L
O-XYLENE	BDL	1.0	ug/L
M/P-XYLENE	BDL	2.0	ug/L

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SURROGATE RECOVERY

DICHLOROETHANE-D4	112	% Rec
TOLUENE-D8	88	% Rec
4-BROMOFLUOROBENZENE	109	% Rec
DIBROMOFLUOROMETHANE	106	% Rec

Prep Method SW846-5030B Purge and Trap

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature 3.7 C.
Sample chain of custody number 49666.

This Certificate shall not be reproduced, except in full,
without the written approval of the lab.
The sample results relate only to the analytes of interest tested
or to the sample as received by the lab.
Heritage Environmental Services, LLC certifies that the test results
indicated as NELAC (National Environmental Laboratory Accreditation
Conference) accredited (Yes for NELAC) meet all requirements of NELAC and
Illinois EPA Part 186 unless otherwise explained or justified as to the
the exact nature of the deviations.
Heritage Environmental Services, LLC is accredited under Illinois NELAC
accreditation number 100401.
Indiana SDWA Lab Accred. No. C-49-01

Approved by: SCOTT BRYAN 27-DEC-07

CERTIFICATE OF ANALYSIS

Service Location

HERITAGE ENVIRONMENTAL SERVICES, LLC
COMMERCIAL LABORATORY OPERATIONS
7901 W. MORRIS ST.
INDIANAPOLIS, IN 46231
(317)243-8304

Received	Project	Lab ID
04-DEC-07		A790959
Completed	**PO Number**	
26-DEC-07	..	
Printed	**Sampled**	
27-DEC-07	04-DEC-07 10:05	

Report To

RICHARD H. WATKIN SR.
LOUISVILLE AND JEFFERSON COUNTY MSD
3050 COMMERCE CENTER PLACE
LOUISVILLE, KY 40211

Bill To

RICK WATKINS
LOUISVILLE & JEFFERSON COUNTY M.S.D.
3050 COMMERCE CENTER PLACE
LOUISVILLE, KY 40211

Sample Description

CLIENT ID: MW-04-31 DUPLICATE
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER CODE: 4217
LOCATION: LEES LANE - ANNUAL EVENT
WELL NUMBER: GROUNDWATER

HEXAVALENT CHROMIUM SW846-7196A NELAC:Y

Analyst: S. BOXUM Analysis Date: 05-DEC-07 09:10 Test: M110.6.0

Parameter	Result	Det. Limit	Units
HEXAVALENT CHROMIUM	BDL	0.01	mg/L

The concentration due to the color and turbidity of the original sample

was subtracted out.

GC PESTICIDE SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

Analyst: B. VANSLAVENS Analysis Date: 06-DEC-07 Instrument: PREP Test: P233.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	10		mL

PCB/PESTICIDE SCAN GC:ECD SW846-8081 NELAC:Y

Analyst: D. EISELE Analysis Date: 13-DEC-07 11:30 Instrument: GC/ECD Test: O305.1.0

Prep: GC PESTICIDE SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C P233.1.0

Parameter	Result	Det. Limit	Units
ALPHA-BHC	BDL	0.05	ug/L
BETA-BHC	BDL	0.05	ug/L
DELTA-BHC	BDL	0.05	ug/L
GAMMA-BHC (LINDANE)	BDL	0.05	ug/L
HEPTACHLOR	BDL	0.05	ug/L
ALDRIN	BDL	0.05	ug/L
HEPTACHLOR EPOXIDE	BDL	0.05	ug/L
ENDOSULFAN I	BDL	0.05	ug/L

DIELDRIN	BDL	0.1	ug/L
4,4'-DDE	BDL	0.1	ug/L
ENDRIN	BDL	0.1	ug/L
ENDOSULFAN II	BDL	0.1	ug/L
4,4'-DDD	BDL	0.1	ug/L
ENDOSULFAN SULFATE	BDL	0.1	ug/L
4,4'-DDT	BDL	0.1	ug/L
METHOXYCHLOR	BDL	0.5	ug/L
ENDRIN ALDEHYDE	BDL	0.1	ug/L
ENDRIN KETONE	BDL	0.1	ug/L
ALPHA-CHLORDANE	BDL	0.5	ug/L
GAMMA-CHLORDANE	BDL	0.5	ug/L
TOXAPHENE	BDL	1	ug/L
PCB AROCLOR 1016	BDL	0.5	ug/L
PCB AROCLOR 1221	BDL	0.5	ug/L
PCB AROCLOR 1232	BDL	0.5	ug/L
PCB AROCLOR 1242	BDL	0.5	ug/L
PCB AROCLOR 1248	BDL	0.5	ug/L
PCB AROCLOR 1254	BDL	0.5	ug/L
PCB AROCLOR 1260	BDL	0.5	ug/L

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SURROGATE RECOVERY

DECACHLOROBIPHENYL (DCB)	119.8	% Rec

CYANIDE DISTILLATION SW846-9012B

Analyst: G. COOPER — Analysis Date: 11-DEC-07 09:30 — Instrument: PREP — Test: P101.4 0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	6		mL
FINAL VOLUME	6		mL

CYANIDE, TOTAL (AUTOMATED) SW846-9012B NELAC:Y

Analyst: E. SOTKIEWICZ — Analysis Date: 11-DEC-07 12:00 — Instrument: AUTO-ANALYZER — Test: G101.4.0

Prep: CYANIDE DISTILLATION SW846-9012B P101 4.0

Parameter	Result	Det. Limit	Units
CYANIDE	BDL	0.005	mg/L

FIELD FILTRATION SAS

Analysis Date: — Instrument: FIELD — Test: P110.0.0

Parameter	Result	Det. Limit	Units

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A790959 MW-04-31 DUPLICATE

LEAD TRACE ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 16:55 Instrument: TRACE ICP Test: M116.0.1

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.0050	mg/L

FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

Analyst: J. KRAMER Analysis Date: 08-DEC-07 20:00 Instrument: PREP Test: P130.4 0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL WEIGHT OR VOLUME	50		mL

ALUMINUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: ICP Test: M101.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ALUMINUM	BDL	0.050	mg/L

ANTIMONY ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: ICP Test: M102.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.010	mg/L

BARIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: ICP Test: M104.3 0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
BARIUM	0.12	0.010	mg/L

BERYLLIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: ICP Test: M105.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.0040	mg/L

CADMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: ICP Test: M108.3.0

Prep. FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0050	mg/L

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A790959 MW-04-31 DUPLICATE

CALCIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: ICP Test: M109.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	95	0.10	mg/L

CHROMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: ICP Test: M110.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COBALT ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: ICP Test: M111.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.010	mg/L

COPPER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: ICP Test: M112.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.010	mg/L

IRON ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: ICP Test: M115.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
IRON	6.5	0.020	mg/L

MAGNESIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: ICP Test: M118.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	35	0.10	mg/L

MANGANESE ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: ICP Test: M119.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.14	0.010	mg/L

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A790959 MW-04-31 DUPLICATE

NICKEL ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: ICP Test: M122.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
NICKEL	BDL	0.0050	mg/L

POTASSIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: ICP Test: M126.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
POTASSIUM	2.4	0.10	mg/L

SILVER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: ICP Test: M130.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.010	mg/L

SODIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: ICP Test: M131.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
SODIUM	24	0.10	mg/L

VANADIUM ICP SW846-6010B NELAC:N

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: ICP Test: M138.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.010	mg/L

ZINC ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 11-DEC-07 04:55 Instrument: ICP Test: M139.3 0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

ARSENIC TRACE ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: TRACE ICP Test: M103.0 0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.0089	0.0050	mg/L

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A790959 MW-04-31 DUPLICATE

LEAD TRACE ICP SW846-6010B NELAC:Y

Analyst: J KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: TRACE ICP Test: M116.0.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130 4 0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.0050	mg/L

SELENIUM TRACE ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: TRACE ICP Test: M128.0.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4 0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.0050	mg/L

THALLIUM TRACE ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:38 Instrument: TRACE ICP Test: M134.0.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.010	mg/L

MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A

Analyst: S. O'NEAL Analysis Date: 20-DEC-07 13:00 Instrument: PREP Test: P131.6.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA SW846-7470A NELAC:Y

Analyst: S. O'NEAL Analysis Date: 21-DEC-07 11:48 Instrument: CVAA Test: M120.1.0

Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A P131.6.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

Analyst: J. MINNIEAR, II Analysis Date: 06-DEC-07 Instrument: PREP Test: P233 4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	1.0		mL

SEMI-VOLATILE ORGANICS (BASE/NEUTRAL/ACID FRACTIONS) SW846-8270C NELAC:Y

Analyst: J. MINNIEAR, II Analysis Date: 07-DEC-07 19:26 Instrument: GC/MS SVOA Test: O505.3.0

Prep: GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C P233.4.0

Parameter	Result	Det. Limit	Units
ACENAPHTHENE	BDL	10	ug/L
ACENAPHTHYLENE	BDL	10	ug/L
ANTHRACENE	BDL	10	ug/L
BENZ(A)ANTHRACENE	BDL	10	ug/L

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A790959 MW-04-31 DUPLICATE

BENZO(A)PYRENE	BDL	10	ug/L
BENZO(B)FLUORANTHENE	BDL	10	ug/L
BENZO(G,H,I)PERYLENE	BDL	10	ug/L
BENZO(K)FLUORANTHENE	BDL	10	ug/L
BENZYL ALCOHOL	BDL	10	ug/L
BENZYLBUTYLPHTHALATE	BDL	10	ug/L
BIS(2-CHLOROETHOXY)METHANE	BDL	10	ug/L
BIS(2-CHLOROETHYL)ETHER	BDL	10	ug/L
BIS(2-CHLOROISOPROPYL)ETHER	BDL	10	ug/L
BIS(2-ETHYLHEXYL)PHTHALATE	BDL	10	ug/L
4-BROMOPHENYLPHENYLETHER	BDL	10	ug/L
CARBAZOLE	BDL	10	ug/L
4-CHLOROANILINE	BDL	10	ug/L
2-CHLORONAPHTHALENE	BDL	10	ug/L
4-CHLOROPHENYLPHENYLETHER	BDL	10	ug/L
CHRYSENE	BDL	10	ug/L
DIBENZ(A,H)ANTHRACENE	BDL	10	ug/L
DIBENZOFURAN	BDL	10	ug/L
1,2-DICHLOROBENZENE	BDL	10	ug/L
1,3-DICHLOROBENZENE	BDL	10	ug/L
1,4-DICHLOROBENZENE	BDL	10	ug/L
3,3'-DICHLOROBENZIDINE	BDL	20	ug/L
DIETHYLPHTHALATE	BDL	10	ug/L
DIMETHYLPHTHALATE	BDL	10	ug/L
DI-N-BUTYLPHTHALATE	BDL	10	ug/L
DINITROBENZENES	BDL	50	ug/L
2,4-DINITROTOLUENE	BDL	10	ug/L
2,6-DINITROTOLUENE	BDL	10	ug/L
DI-N-OCTYLPHTHALATE	BDL	10	ug/L
FLUORANTHENE	BDL	10	ug/L
FLUORENE	BDL	10	ug/L
HEXACHLOROBENZENE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	10	ug/L
HEXACHLOROCYCLOPENTADIENE	BDL	10	ug/L
HEXACHLOROETHANE	BDL	10	ug/L
INDENO(1,2,3-CD)PYRENE	BDL	10	ug/L
ISOPHORONE	BDL	10	ug/L
2-METHYLNAPHTHALENE	BDL	10	ug/L
NAPHTHALENE	BDL	10	ug/L
2-NITROANILINE	BDL	50	ug/L
3-NITROANILINE	BDL	50	ug/L

4-NITROANILINE	BDL	50	ug/L
NITROBENZENE	BDL	10	ug/L
N-NITROSO-DIPHENYLAMINE	BDL	10	ug/L
N-NITROSO-DI-N-PROPYLAMINE	BDL	10	ug/L
PHENANTHRENE	BDL	10	ug/L
2-PICOLINE	BDL	50	ug/L
PYRENE	BDL	10	ug/L
PYRIDINE	BDL	50	ug/L
1,2,4,5-TETRACHLOROBENZENE	BDL	10	ug/L
TOLUENEDIAMINE	BDL	50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	10	ug/L
BENZOIC ACID	BDL	50	ug/L
4-CHLORO-3-METHYLPHENOL	BDL	10	ug/L
2-CHLOROPHENOL	BDL	10	ug/L
2,4-DICHLOROPHENOL	BDL	10	ug/L
2,4-DIMETHYLPHENOL	BDL	10	ug/L
4,6-DINITRO-2-METHYLPHENOL	BDL	50	ug/L
2,4-DINITROPHENOL	BDL	50	ug/L
2-METHYLPHENOL	BDL	10	ug/L
4-METHYLPHENOL	BDL	10	ug/L
2-NITROPHENOL	BDL	10	ug/L
4-NITROPHENOL	BDL	50	ug/L
PENTACHLOROPHENOL	BDL	50	ug/L
PHENOL	BDL	10	ug/L
1,2,4,5-TETRACHLOROBENZENE	BDL	10	ug/L
2,4,5-TRICHLOROPHENOL	BDL	50	ug/L
2,4,6-TRICHLOROPHENOL	BDL	10	ug/L

SURROGATE RECOVERY

2-FLUOROPHENOL	46	% Rec
PHENOL-D5	31	% Rec
NITROBENZENE-D5	84	% Rec
2-FLUOROBIPHENYL	78	% Rec
2,4,6-TRIBROMOPHENOL	77	% Rec
TERPHENYL-D14	52	% Rec

25 ML PURGE - VOLATILE ORGANICS SW846-8260B NELAC:Y

Analyst: R. SHAMP Analysis Date: 07-DEC-07 12:28 Instrument: GC/MS VOA Test: O510.7.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	1.0	ug/L

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A790959 MW-04-31 DUPLICATE

BROMOBENZENE	BDL	1.0	ug/L
BROMOCHLOROMETHANE	BDL	1.0	ug/L
BROMODICHLOROMETHANE	BDL	1.0	ug/L
BROMOFORM	BDL	1.0	ug/L
BROMOMETHANE	BDL	1.0	ug/L
N-BUTYLBENZENE	BDL	1.0	ug/L
SEC-BUTYLBENZENE	BDL	1.0	ug/L
TERT-BUTYLBENZENE	BDL	1.0	ug/L
CARBON TETRACHLORIDE	BDL	1.0	ug/L
CHLOROBENZENE	BDL	1.0	ug/L
DIBROMOCHLOROMETHANE	BDL	1.0	ug/L
CHLOROETHANE	BDL	1.0	ug/L
CHLOROFORM	BDL	1.0	ug/L
CHLOROMETHANE	BDL	1.0	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	1.0	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	1.0	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	1.0	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	1.0	ug/L
DIBROMOMETHANE	BDL	1.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	1.0	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	1.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	1.0	ug/L
DICHLORODIFLUOROMETHANE	BDL	1.0	ug/L
1,1-DICHLOROETHANE	BDL	1.0	ug/L
1,2-DICHLOROETHANE	BDL	1.0	ug/L
1,1-DICHLOROETHENE	BDL	1.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	1.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	1.0	ug/L
1,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,3-DICHLOROPROPANE	BDL	1.0	ug/L
2,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,1-DICHLOROPROPENE	BDL	1.0	ug/L
ETHYL BENZENE	BDL	1.0	ug/L
HEXACHLOROBUTADIENE	BDL	1.0	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	1.0	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	1.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	1.0	ug/L
METHYL ETHYL KETONE	BDL	5.0	ug/L
NAPHTHALENE	BDL	1.0	ug/L
N-PROPYLBENZENE	BDL	1.0	ug/L
STYRENE	BDL	1.0	ug/L

1,1,1,2-TETRACHLOROETHANE	BDL	1.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	1.0	ug/L
TETRACHLOROETHENE	BDL	1.0	ug/L
TOLUENE	BDL	1.0	ug/L
1,2,3-TRICHLOROBENZENE	BDL	1.0	ug/L
1,2,4-TRICHLOROBENZENE	BDL	1.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	1.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	1.0	ug/L
TRICHLOROETHENE	BDL	1.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	1.0	ug/L
1,2,3-TRICHLOROPROPANE	BDL	1.0	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	1.0	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	1.0	ug/L
VINYL CHLORIDE	BDL	1.0	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	1.0	ug/L
N-HEXANE	BDL	1.0	ug/L
O-XYLENE	BDL	1.0	ug/L
M/P-XYLENE	BDL	2.0	ug/L

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SURROGATE RECOVERY

DICHLOROETHANE-D4	117	% Rec
TOLUENE-D8	90	% Rec
4-BROMOFLUOROBENZENE	100	% Rec
DIBROMOFLUOROMETHANE	110	% Rec

Prep Method SW846-5030B Purge and Trap

Sample Comments

BDL *Below Detection Limit*

Sample was received on ice at temperature 3.7 C.
Sample chain of custody number 49666.

This Certificate shall not be reproduced, except in full,
without the written approval of the lab.

The sample results relate only to the analytes of interest tested
or to the sample as received by the lab.

Heritage Environmental Services, LLC certifies that the test results
indicated as NELAC (National Environmental Laboratory Accreditation
Conference) accredited (Yes for NELAC) meet all requirements of NELAC and
Illinois EPA Part 186 unless otherwise explained or justified as to the
the exact nature of the deviations.

Heritage Environmental Services, LLC is accredited under Illinois NELAC
accreditation number 100401.

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A790959 MW-04-31 DUPLICATE

Sample Comments

Indiana SDWA Lab Accred. No. C-49-01

Approved by: SCOTT BRYAN 27-DEC-07

CERTIFICATE OF ANALYSIS

Service Location

HERITAGE ENVIRONMENTAL SERVICES, LLC
COMMERCIAL LABORATORY OPERATIONS
7901 W. MORRIS ST.
INDIANAPOLIS, IN 46231
(317)243-8304

Received	Project	Lab ID
04-DEC-07		A790960
Completed	**PO Number**	
26-DEC-07	..	
Printed	**Sampled**	
27-DEC-07	04-DEC-07 11:35	

Report To

RICHARD H. WATKIN SR.
LOUISVILLE AND JEFFERSON COUNTY MSD
3050 COMMERCE CENTER PLACE
LOUISVILLE, KY 40211

Bill To

RICK WATKINS
LOUISVILLE & JEFFERSON COUNTY M.S.D.
3050 COMMERCE CENTER PLACE
LOUISVILLE, KY 40211

Sample Description

CLIENT ID: MW-05-31
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER CODE: 4217
LOCATION: LEES LANE - ANNUAL EVENT
WELL NUMBER: GROUNDWATER

HEXAVALENT CHROMIUM SW846-7196A NELAC:Y

Analyst: S. BOXUM Analysis Date: 05-DEC-07 09:10 Test: M110.6.0

Parameter	Result	Det. Limit	Units
HEXAVALENT CHROMIUM	BDL	0.01	mg/L

The concentration due to the color and turbidity of the original sample

was subtracted out.

GC PESTICIDE SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

Analyst: B. VANSLAVENS Analysis Date: 06-DEC-07 Instrument: PREP Test: P233.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	10		mL

PCB/PESTICIDE SCAN GC:ECD SW846-8081 NELAC:Y

Analyst: D. EISELE Analysis Date: 13-DEC-07 12:06 Instrument: GC/ECD Test: O305.1.0

Prep: GC PESTICIDE SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C P233.1.0

Parameter	Result	Det. Limit	Units
ALPHA-BHC	BDL	0.05	ug/L
BETA-BHC	BDL	0.05	ug/L
DELTA-BHC	BDL	0.05	ug/L
GAMMA-BHC (LINDANE)	BDL	0.05	ug/L
HEPTACHLOR	BDL	0.05	ug/L
ALDRIN	BDL	0.05	ug/L
HEPTACHLOR EPOXIDE	BDL	0.05	ug/L
ENDOSULFAN I	BDL	0.05	ug/L

DIELDRIN	BDL	0.1	ug/L
4,4'-DDE	BDL	0.1	ug/L
ENDRIN	BDL	0.1	ug/L
ENDOSULFAN II	BDL	0.1	ug/L
4,4'-DDD	BDL	0.1	ug/L
ENDOSULFAN SULFATE	BDL	0.1	ug/L
4,4'-DDT	BDL	0.1	ug/L
METHOXYCHLOR	BDL	0.5	ug/L
ENDRIN ALDEHYDE	BDL	0.1	ug/L
ENDRIN KETONE	BDL	0.1	ug/L
ALPHA-CHLORDANE	BDL	0.5	ug/L
GAMMA-CHLORDANE	BDL	0.5	ug/L
TOXAPHENE	BDL	1	ug/L
PCB AROCLOR 1016	BDL	0.5	ug/L
PCB AROCLOR 1221	BDL	0.5	ug/L
PCB AROCLOR 1232	BDL	0.5	ug/L
PCB AROCLOR 1242	BDL	0.5	ug/L
PCB AROCLOR 1248	BDL	0.5	ug/L
PCB AROCLOR 1254	BDL	0.5	ug/L
PCB AROCLOR 1260	BDL	0.5	ug/L

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SURROGATE RECOVERY

DECACHLOROBIPHENYL (DCB)	117.8	% Rec

CYANIDE DISTILLATION SW846-9012B

Analyst: G. COOPER — Analysis Date: 11-DEC-07 09:30 — Instrument: PREP — Test: P101.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	6		mL
FINAL VOLUME	6		mL

CYANIDE, TOTAL (AUTOMATED) SW846-9012B NELAC:Y

Analyst: E. SOTKIEWICZ — Analysis Date: 11-DEC-07 12:00 — Instrument: AUTO-ANALYZER — Test: G101.4.0

Prep: CYANIDE DISTILLATION SW846-9012B P101.4.0

Parameter	Result	Det. Limit	Units
CYANIDE	BDL	0.005	mg/L

FIELD FILTRATION SAS

Analysis Date: — Instrument: FIELD — Test: P110.0.0

Parameter	Result	Det. Limit	Units

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A790960 MW-05-31

LEAD TRACE ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 17:00 Instrument: TRACE ICP Test: M116.0.1

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.0050	mg/L

FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

Analyst: J KRAMER Analysis Date: 08-DEC-07 20:00 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL WEIGHT OR VOLUME	50		mL

ALUMINUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: ICP Test: M101.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ALUMINUM	BDL	0.050	mg/L

ANTIMONY ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: ICP Test: M102.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.010	mg/L

BARIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: ICP Test: M104.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
BARIUM	2.5	0.010	mg/L

BERYLLIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: ICP Test: M105.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.0040	mg/L

CADMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: ICP Test: M108.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0050	mg/L

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A790960 MW-05-31

CALCIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: ICP Test: M109.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det Limit	Units
CALCIUM	99	0.10	mg/L

CHROMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: ICP Test: M110.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COBALT ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: ICP Test: M111.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
COBALT	0.013	0.010	mg/L

COPPER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: ICP Test: M112.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.010	mg/L

IRON ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: ICP Test: M115.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
IRON	15	0.020	mg/L

MAGNESIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: ICP Test: M118.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	36	0.10	mg/L

MANGANESE ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: ICP Test: M119.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.68	0.010	mg/L

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A790960 MW-05-31

NICKEL ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: ICP Test: M122 3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
NICKEL	BDL	0.0050	mg/L

POTASSIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: ICP Test: M126.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
POTASSIUM	32	0.10	mg/L

SILVER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: ICP Test: M130.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.010	mg/L

SODIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: ICP Test: M131.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
SODIUM	66	0.10	mg/L

VANADIUM ICP SW846-6010B NELAC:N

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: ICP Test: M138.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.010	mg/L

ZINC ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 11-DEC-07 04:58 Instrument: ICP Test: M139.3.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

ARSENIC TRACE ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.033	0.0050	mg/L

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A790960 MW-05-31

LEAD TRACE ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: TRACE ICP Test: M116.0.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det Limit	Units
LEAD	BDL	0.0050	mg/L

SELENIUM TRACE ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: TRACE ICP Test: M128.0.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.0050	mg/L

THALLIUM TRACE ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 09-DEC-07 19:43 Instrument: TRACE ICP Test: M134.0.0

Prep: FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.010	mg/L

MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A

Analyst: S. O'NEAL Analysis Date: 20-DEC-07 13:00 Instrument: PREP Test: P131.6.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA SW846-7470A NELAC:Y

Analyst: S. O'NEAL Analysis Date: 21-DEC-07 11:48 Instrument: CVAA Test: M120.1.0

Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A P131.6.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

Analyst: J. MINNIEAR, II Analysis Date: 06-DEC-07 Instrument: PREP Test: P233.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	1.0		mL

SEMI-VOLATILE ORGANICS (BASE/NEUTRAL/ACID FRACTIONS) SW846-8270C NELAC:Y

Analyst: J. MINNIEAR, II Analysis Date: 07-DEC-07 20:04 Instrument: GC/MS SVOA Test: O505.3.0

Prep: GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C P233.4.0

Parameter	Result	Det. Limit	Units
ACENAPHTHENE	BDL	10	ug/L
ACENAPHTHYLENE	BDL	10	ug/L
ANTHRACENE	BDL	10	ug/L
BENZ(A)ANTHRACENE	BDL	10	ug/L

BENZO(A)PYRENE	BDL	10	ug/L
BENZO(B)FLUORANTHENE	BDL	10	ug/L
BENZO(G,H,I)PERYLENE	BDL	10	ug/L
BENZO(K)FLUORANTHENE	BDL	10	ug/L
BENZYL ALCOHOL	BDL	10	ug/L
BENZYLBUTYLPHTHALATE	BDL	10	ug/L
BIS(2-CHLOROETHOXY)METHANE	BDL	10	ug/L
BIS(2-CHLOROETHYL)ETHER	BDL	10	ug/L
BIS(2-CHLOROISOPROPYL)ETHER	BDL	10	ug/L
BIS(2-ETHYLHEXYL)PHTHALATE	BDL	10	ug/L
4-BROMOPHENYLPHENYLETHER	BDL	10	ug/L
CARBAZOLE	BDL	10	ug/L
4-CHLOROANILINE	BDL	10	ug/L
2-CHLORONAPHTHALENE	BDL	10	ug/L
4-CHLOROPHENYLPHENYLETHER	BDL	10	ug/L
CHRYSENE	BDL	10	ug/L
DIBENZ(A,H)ANTHRACENE	BDL	10	ug/L
DIBENZOFURAN	BDL	10	ug/L
1,2-DICHLOROBENZENE	BDL	10	ug/L
1,3-DICHLOROBENZENE	BDL	10	ug/L
1,4-DICHLOROBENZENE	BDL	10	ug/L
3,3'-DICHLOROBENZIDINE	BDL	20	ug/L
DIETHYLPHTHALATE	BDL	10	ug/L
DIMETHYLPHTHALATE	BDL	10	ug/L
DI-N-BUTYLPHTHALATE	BDL	10	ug/L
DINITROBENZENES	BDL	50	ug/L
2,4-DINITROTOLUENE	BDL	10	ug/L
2,6-DINITROTOLUENE	BDL	10	ug/L
DI-N-OCTYLPHTHALATE	BDL	10	ug/L
FLUORANTHENE	BDL	10	ug/L
FLUORENE	BDL	10	ug/L
HEXACHLOROBENZENE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	10	ug/L
HEXACHLOROCYCLOPENTADIENE	BDL	10	ug/L
HEXACHLOROETHANE	BDL	10	ug/L
INDENO(1,2,3-CD)PYRENE	BDL	10	ug/L
ISOPHORONE	BDL	10	ug/L
2-METHYLNAPHTHALENE	BDL	10	ug/L
NAPHTHALENE	BDL	10	ug/L
2-NITROANILINE	BDL	50	ug/L
3-NITROANILINE	BDL	50	ug/L

4-NITROANILINE	BDL	50	ug/L
NITROBENZENE	BDL	10	ug/L
N-NITROSO-DIPHENYLAMINE	BDL	10	ug/L
N-NITROSO-DI-N-PROPYLAMINE	BDL	10	ug/L
PHENANTHRENE	BDL	10	ug/L
2-PICOLINE	BDL	50	ug/L
PYRENE	BDL	10	ug/L
PYRIDINE	BDL	50	ug/L
1,2,4,5-TETRACHLOROBENZENE	BDL	10	ug/L
TOLUENEDIAMINE	BDL	50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	10	ug/L
BENZOIC ACID	BDL	50	ug/L
4-CHLORO-3-METHYLPHENOL	BDL	10	ug/L
2-CHLOROPHENOL	BDL	10	ug/L
2,4-DICHLOROPHENOL	BDL	10	ug/L
2,4-DIMETHYLPHENOL	BDL	10	ug/L
4,6-DINITRO-2-METHYLPHENOL	BDL	50	ug/L
2,4-DINITROPHENOL	BDL	50	ug/L
2-METHYLPHENOL	BDL	10	ug/L
4-METHYLPHENOL	BDL	10	ug/L
2-NITROPHENOL	BDL	10	ug/L
4-NITROPHENOL	BDL	50	ug/L
PENTACHLOROPHENOL	BDL	50	ug/L
PHENOL	BDL	10	ug/L
1,2,4,5-TETRACHLOROBENZENE	BDL	10	ug/L
2,4,5-TRICHLOROPHENOL	BDL	50	ug/L
2,4,6-TRICHLOROPHENOL	BDL	10	ug/L

SURROGATE RECOVERY

2-FLUOROPHENOL	47	% Rec
PHENOL-D5	32	% Rec
NITROBENZENE-D5	80	% Rec
2-FLUOROBIPHENYL	74	% Rec
2,4,6-TRIBROMOPHENOL	78	% Rec
TERPHENYL-D14	63	% Rec

25 ML PURGE - VOLATILE ORGANICS SW846-8260B NELAC:Y

Analyst: R. SHAMP Analysis Date: 07-DEC-07 12:53 Instrument: GC/MS VOA Test: O510.7.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	1.0	ug/L

BROMOBENZENE	BDL	1.0	ug/L
BROMOCHLOROMETHANE	BDL	1.0	ug/L
BROMODICHLOROMETHANE	BDL	1.0	ug/L
BROMOFORM	BDL	1.0	ug/L
BROMOMETHANE	BDL	1.0	ug/L
N-BUTYLBENZENE	BDL	1.0	ug/L
SEC-BUTYLBENZENE	BDL	1.0	ug/L
TERT-BUTYLBENZENE	BDL	1.0	ug/L
CARBON TETRACHLORIDE	BDL	1.0	ug/L
CHLOROBENZENE	BDL	1.0	ug/L
DIBROMOCHLOROMETHANE	BDL	1.0	ug/L
CHLOROETHANE	BDL	1.0	ug/L
CHLOROFORM	BDL	1.0	ug/L
CHLOROMETHANE	BDL	1.0	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	1.0	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	1.0	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	1.0	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	1.0	ug/L
DIBROMOMETHANE	BDL	1.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	1.0	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	1.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	1.0	ug/L
DICHLORODIFLUOROMETHANE	BDL	1.0	ug/L
1,1-DICHLOROETHANE	BDL	1.0	ug/L
1,2-DICHLOROETHANE	BDL	1.0	ug/L
1,1-DICHLOROETHENE	BDL	1.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	1.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	1.0	ug/L
1,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,3-DICHLOROPROPANE	BDL	1.0	ug/L
2,2-DICHLOROPROPANE	BDL	1.0	ug/L
1,1-DICHLOROPROPENE	BDL	1.0	ug/L
ETHYL BENZENE	BDL	1.0	ug/L
HEXACHLOROBUTADIENE	BDL	1.0	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	1.0	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	1.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	1.0	ug/L
METHYL ETHYL KETONE	BDL	5.0	ug/L
NAPHTHALENE	BDL	1.0	ug/L
N-PROPYLBENZENE	BDL	1.0	ug/L
STYRENE	BDL	1.0	ug/L

1,1,1,2-TETRACHLOROETHANE	BDL	1.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	1.0	ug/L
TETRACHLOROETHENE	BDL	1.0	ug/L
TOLUENE	BDL	1.0	ug/L
1,2,3-TRICHLOROBENZENE	BDL	1.0	ug/L
1,2,4-TRICHLOROBENZENE	BDL	1.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	1.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	1.0	ug/L
TRICHLOROETHENE	BDL	1.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	1.0	ug/L
1,2,3-TRICHLOROPROPANE	BDL	1.0	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	1.0	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	1.0	ug/L
VINYL CHLORIDE	BDL	1.0	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	1.0	ug/L
N-HEXANE	BDL	1.0	ug/L
O-XYLENE	BDL	1.0	ug/L
M/P-XYLENE	BDL	2.0	ug/L

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SURROGATE RECOVERY

DICHLOROETHANE-D4	112	% Rec
TOLUENE-D8	90	% Rec
4-BROMOFLUOROBENZENE	98	% Rec
DIBROMOFLUOROMETHANE	113	% Rec

Prep Method SW846-5030B Purge and Trap

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature 3.7 C.
Sample chain of custody number 49666.

This Certificate shall not be reproduced, except in full,
without the written approval of the lab.

The sample results relate only to the analytes of interest tested
or to the sample as received by the lab.

Heritage Environmental Services, LLC certifies that the test results
indicated as NELAC (National Environmental Laboratory Accreditation
Conference) accredited (Yes for NELAC) meet all requirements of NELAC and
Illinois EPA Part 186 unless otherwise explained or justified as to the
the exact nature of the deviations.

Heritage Environmental Services, LLC is accredited under Illinois NELAC
accreditation number 100401.

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A790960 MW-05-31

Sample Comments

Indiana SDWA Lab Accred. No. C-49-01

Approved by: SCOTT BRYAN 27-DEC-07

HERITAGE

SAB56048

SELENIUM TRACE ICP SW846-6010B **M128.0**
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528659 Analyst: J KRAMER Run Date: 09-Dec-07
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SPI02	Q2025640	A790897	SELENIUM	0	2		2.12	mg/L	106.0	
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
CCV	Q2026311	INORGANIC	SELENIUM	2			1.96	mg/L	98.0	
BLA01	Q2026296	NA	SELENIUM			<	0.00200	mg/L		
CDL01	Q2026319	INORGANIC	SELENIUM	0.01			0.00649	mg/L	64.9	
ICS-AB	Q2026300	PERKIN ELM	SELENIUM	0.05			0.0465	mg/L	93.0	

R528708 Analyst: J KRAMER Run Date: 10-Dec-07 Instrument: TRACE ICP
Analytical Reviewer: S ENDERSEN Review Date: 11-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LCS	Q2025624	SPEX	SELENIUM	2			2.09	mg/L	104.5	

RQL	Result Qualifier Definition
!	Outside Lab Generated Control Limits
<	Less Than
BDL	Below Detection Limit
CNA	RPD Calculation Not Applicable < DL
LIN	Linear Regression Used

QC Type	Definition
LFB02H	HIGH LABORATORY FORTIFIED BLANK PREPPED
SER01	ICP SERIAL DILUTION
ICS-A	INTERFERENCE CHECK SAMPLE A
SPI01	MATRIX SPIKE
DUP02	PREPPED DUPLICATE SAMPLE ANALYSIS
SPI02	PREPPED MATRIX SPIKE
CDL01	DETECTION LIMIT STANDARD
CAL01	INITIAL CALIBRATION
DPS02	PREPPED DUPLICATE MATRIX SPIKE
LCS	LABORATORY CONTROL SAMPLE PREPPED
LFB02L	LOW LABORATORY FORTIFIED BLANK PREPPED
CCV	CONTINUING CALIBRATION VERIFICATION
ICV01	INITIAL CALIBRATION VERIFICATION DIFFERENT SOURCE
CCVD	CONTINUING CALIBRATION VERIFICATION (USING %D)
DPS01	DUPLICATE MATRIX SPIKE
DUP01	DUPLICATE SAMPLE ANALYSIS
LCS01	LABORATORY CONTROL SAMPLE
BLA01	CALIBRATION (INSTRUMENT) BLANK
BLA02	PREPPED (CALIBRATION) BLANK OR METHOD BLANK
ICS-AB	INTERFERENCE CHECK SAMPLE AB

Approved By : SCOTT BRYAN

HERITAGE

SAB56048

SELENIUM TRACE ICP SW846-6010B **M128.0**
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Analyst: P MATAKA Run Date: 07-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528708							
SAMPLE	A790958	Rep: 0	Analytical Run: R528659							
BLA02	Q2025637	NA	Analytical Run: R528659							
LCS	Q2025638	INORGANIC	Analytical Run: R528659							
DUP02	Q2025639	A790897	Analytical Run: R528659							
SPI02	Q2025640	A790897	Analytical Run: R528659							

R528615 Analyst: J KRAMER Run Date: 08-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run: R528659							

R528645 Analyst: J KRAMER Run Date: 07-Dec-07 Instrument: TRACE ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	SELENIUM			<	0.00400	mg/L		

R528659 Analyst: J KRAMER Run Date: 09-Dec-07 Instrument: TRACE ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	SELENIUM	1			0.977	mg/L	97.7	
BLA02	Q2025915	NA	SELENIUM			<	0.00200	mg/L		
LCS	Q2025916	SPEX	SELENIUM	2			2.02	mg/L	101.0	
SPI02	Q2025917	A791088	SELENIUM	0	2		2.04	mg/L	102 0	
DPS02	Q2025918	A791088	SELENIUM	0	2		1.99	mg/L	99.5	2.5
CDL01	Q2026315	PERKIN ELM	SELENIUM	0.01			0.00500	mg/L	50.0	
ICS-AB	Q2026299	PERKIN ELM	SELENIUM	0.05			0.0436	mg/L	87.2	
SER01	Q2026328	A791512	SELENIUM	0		BDL		mg/L		
CCV	Q2026309	INORGANIC	SELENIUM	2			1.99	mg/L	99.5	
BLA01	Q2026294	NA	SELENIUM			<	0.00200	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis. Rep. 0							
CCV	Q2026310	INORGANIC	SELENIUM	2			2.02	mg/L	101.0	
BLA01	Q2026295	NA	SELENIUM			<	0.00200	mg/L		
BLA02	Q2025637	NA	SELENIUM			<	0.00200	mg/L		
LCS	Q2025638	INORGANIC	SELENIUM	2			2.07	mg/L	103.5	
SER01	Q2026326	A790897	SELENIUM	0		BDL		mg/L		
DUP02	Q2025639	A790897	SELENIUM	0		BDL		mg/L		

HERITAGE

SAB56048

ALUMINUM ICP SW846-6010B **M101.3**
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528645 Analyst: J KRAMER Run Date: 07-Dec-07
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SPI02	Q2025626	A790897	ALUMINUM	0	2.00		2.15	mg/L	107.5	
CCV	Q2026068	INORGANIC	ALUMINUM	5.00			5 12	mg/L	102.4	
BLA01	Q2026050	NA	ALUMINUM			<	0.0200	mg/L		
SAMPLE	A790958		See Certificate of Analysis. Rep: 0							
CCV	Q2026069	INORGANIC	ALUMINUM	5.00			5 18	mg/L	103.6	
BLA01	Q2026051	NA	ALUMINUM			<	0.0200	mg/L		
SER01	Q2026091	A790942	ALUMINUM	1650			1620	mg/L		1.8
CDL01	Q2026082	INORGANIC	ALUMINUM	0.0500			0 0365	mg/L	73.0	
ICS-A	Q2026085	PERKIN-ELM	ALUMINUM	500			532	mg/L	106.4	
ICS-AB	Q2026061	PERKIN ELM	ALUMINUM	500			544	mg/L	108.8	

Q2026088 There was possible matrix interference for K
Q2026088 as indicated by the serial dilution results.

R528659 Analyst: J KRAMER Run Date: 09-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	ALUMINUM	1			0.952	mg/L	95.2	
BLA02	Q2025915	NA	ALUMINUM			<	0.0200	mg/L		
LCS	Q2025916	SPEX	ALUMINUM	2			2.00	mg/L	100.0	
SPI02	Q2025917	A791088	ALUMINUM	0.444	2.00		2.64	mg/L	109.8	
DPS02	Q2025918	A791088	ALUMINUM	0.444	2.00		2.53	mg/L	104.3	5.1
CDL01	Q2026318	INORGANIC	ALUMINUM	0.0500			0.0483	mg/L	96.6	
ICS-A	Q2026323	PERKIN-ELM	ALUMINUM	500			489	mg/L	97.8	
ICS-AB	Q2026299	PERKIN ELM	ALUMINUM	500			508	mg/L	101.6	
SER01	Q2026328	A791512	ALUMINUM	0.132		CNA	0.137	mg/L		
CCV	Q2026309	INORGANIC	ALUMINUM	5.00			5.03	mg/L	100.6	
BLA01	Q2026294	NA	ALUMINUM			<	0.0200	mg/L		
SAMPLE	A790959		See Certificate of Analysis. Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026310	INORGANIC	ALUMINUM	5.00			5.10	mg/L	102.0	
BLA01	Q2026295	NA	ALUMINUM			<	0.0200	mg/L		
SER01	Q2026326	A790897	ALUMINUM	0		BDL		mg/L		
DUP02	Q2025639	A790897	ALUMINUM	0		BDL		mg/L		
CDL01	Q2026319	INORGANIC	ALUMINUM	0 0500			0.0511	mg/L	102.2	
ICS-A	Q2026324	PERKIN-ELM	ALUMINUM	500			508	mg/L	101.6	
ICS-AB	Q2026300	PERKIN ELM	ALUMINUM	500			522	mg/L	104 4	

HERITAGE

SAB56048

25 ML PURGE - VOLATILE ORGANICS SW846-8260B

O510.7

R528766 Analyst: R SHAMP Run Date: 07-Dec-07
Analytical Reviewer: H WILLIAMS Review Date: 12-Dec-07

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	A790959		Analysis Date/Time: 07-Dec-07 12:28							
SAMPLE	A790959		See Certificate of Analysis. Rep: 0							
SAMPLE	A790960		Analysis Date/Time: 07-Dec-07 12:53							
SAMPLE	A790960		See Certificate of Analysis. Rep: 0							

Q2022909 Value reported for analytes calibrated by linear (LIN) or
Q2022909 quadratic (QDR) equations is r2 (Coef. of Determination)
Q2027267 Value reported for analytes calibrated by linear (LIN) or quadratic (QDR)
Q2027267 equations is concentration ( ).
Q2027274 2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery
Q2027274 possible. Unacidified sample not available
Q2027275 2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery
Q2027275 possible. Unacidified sample not available.

ALUMINUM ICP SW846-6010B

M101.3

Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Analyst: P MATAKA Run Date: 07-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528645							
SPI02	Q2025626	A790897	Analytical Run: R528645							
SAMPLE	A790958	Rep: 0	Analytical Run: R528645							
DUP02	Q2025639	A790897	Analytical Run: R528659							

R528615 Analyst: J KRAMER Run Date: 08-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run: R528659							

R528645 Analyst: J KRAMER Run Date: 07-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026093	PERKIN ELM	ALUMINUM	1			1.03	mg/L	103.0	
CDL01	Q2026083	INORGANIC	ALUMINUM	10			9.99	mg/L	99.9	
ICS-A	Q2026084	PERKIN-ELM	ALUMINUM	500			518	mg/L	103.6	
ICS-AB	Q2026060	PERKIN ELM	ALUMINUM	500			525	mg/L	105.0	
BLA02	Q2025623	NA	ALUMINUM			<	0.0200	mg/L		
LCS	Q2025624	SPEX	ALUMINUM	2			2.06	mg/L	103.0	
SER01	Q2026088	A790897	ALUMINUM	0		BDL		mg/L		

HERITAGE

SAB56048

25 ML PURGE - VOLATILE ORGANICS SW846-8260B

O510.7

R528766 Analyst: R SHAMP Run Date: 07-Dec-07
Analytical Reviewer: H WILLIAMS Review Date: 12-Dec-07

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
DPS01	Q2027275	A790598	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0	10		9.48	ug/L	94.8	12.8
DPS01	Q2027275	A790598	1,2-DIBROMOETHANE (EDB)	0	10		9.73	ug/L	97.3	2.7
DPS01	Q2027275	A790598	DIBROMOMETHANE	0	10		10.5	ug/L	104.7	7.2
DPS01	Q2027275	A790598	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	0	10	!	12.6	ug/L	125.5	11.3
DPS01	Q2027275	A790598	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	0	10		12.7	ug/L	126.6	11.7
DPS01	Q2027275	A790598	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	0	10		12.5	ug/L	125.2	10.4
DPS01	Q2027275	A790598	DICHLORODIFLUOROMETHANE	0	10		6.12	ug/L	61.2	8.9
DPS01	Q2027275	A790598	1,1-DICHLOROETHANE	0	10		10.7	ug/L	106.6	6.2
DPS01	Q2027275	A790598	1,2-DICHLOROETHANE	0	10		11.2	ug/L	112	7.5
DPS01	Q2027275	A790598	1,1-DICHLOROETHENE	0	10		10.3	ug/L	103.4	2.7
DPS01	Q2027275	A790598	CIS-1,2-DICHLOROETHENE	0	10		10.5	ug/L	105.4	3.4
DPS01	Q2027275	A790598	TRANS-1,2-DICHLOROETHENE	0	10		11.3	ug/L	112.6	7
DPS01	Q2027275	A790598	1,2-DICHLOROPROPANE	0	10		10.1	ug/L	100.8	5.4
DPS01	Q2027275	A790598	1,3-DICHLOROPROPANE	0	10		11.3	ug/L	113.2	9
DPS01	Q2027275	A790598	2,2-DICHLOROPROPANE	0	10		10.9	ug/L	109.3	9.9
DPS01	Q2027275	A790598	1,1-DICHLOROPROPENE	0	10		10.4	ug/L	104.5	2.8
DPS01	Q2027275	A790598	ETHYL BENZENE	0	10		11.8	ug/L	117.6	9.3
DPS01	Q2027275	A790598	HEXACHLOROBUTADIENE	0	10		12.9	ug/L	128.6	17
DPS01	Q2027275	A790598	ISOPROPYLBENZENE (CUMENE)	0	10		11.6	ug/L	115.7	6.8
DPS01	Q2027275	A790598	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	0	10		11.8	ug/L	118.2	10.3
DPS01	Q2027275	A790598	DICHLOROMETHANE (METHYLENE CHLORIDE)	0	10		10.1	ug/L	100.7	1.8
DPS01	Q2027275	A790598	METHYL ETHYL KETONE	0	50		44.4	ug/L	88.8	7.2
DPS01	Q2027275	A790598	NAPHTHALENE	0	10	!	11.5	ug/L	115	24.9
DPS01	Q2027275	A790598	N-PROPYLBENZENE	0	10		12.1	ug/L	120.5	7.3
DPS01	Q2027275	A790598	STYRENE	0	10		10.2	ug/L	102.3	8.9
DPS01	Q2027275	A790598	1,1,1,2-TETRACHLOROETHANE	0	10		12.1	ug/L	121	11.4
DPS01	Q2027275	A790598	1,1,2,2-TETRACHLOROETHANE	0	10		11	ug/L	109.7	4.4
DPS01	Q2027275	A790598	TETRACHLOROETHENE	0	10		12.6	ug/L	126.4	11.1
DPS01	Q2027275	A790598	TOLUENE	0	10		10.2	ug/L	101.5	3.7
DPS01	Q2027275	A790598	1,2,3-TRICHLOROBENZENE	0	10		12.8	ug/L	128.4	22.7
DPS01	Q2027275	A790598	1,2,4-TRICHLOROBENZENE	0	10		12.4	ug/L	124.1	20.5
DPS01	Q2027275	A790598	1,1,1-TRICHLOROETHANE	0	10		11.6	ug/L	115.7	6.1
DPS01	Q2027275	A790598	1,1,2-TRICHLOROETHANE	0	10		10	ug/L	100	8.2
DPS01	Q2027275	A790598	TRICHLOROETHENE	0	10		11.4	ug/L	113.6	7.6
DPS01	Q2027275	A790598	TRICHLOROFLUOROMETHANE	0	10		11.9	ug/L	119.2	16.2
DPS01	Q2027275	A790598	1,2,3-TRICHLOROPROPANE	0	10		12	ug/L	120.3	13.2
DPS01	Q2027275	A790598	1,2,4-TRIMETHYLBENZENE	0	10		11.5	ug/L	114.7	8.5
DPS01	Q2027275	A790598	1,3,5-TRIMETHYLBENZENE	0	10		11.4	ug/L	114.5	8.7
DPS01	Q2027275	A790598	VINYL CHLORIDE	0	10		9.76	ug/L	97.6	6.1
DPS01	Q2027275	A790598	METHYL-T-BUTYL ETHER (MTBE)	0	10		9.59	ug/L	95.9	6
DPS01	Q2027275	A790598	O-XYLENE	0	10		11.3	ug/L	113.1	9.1
DPS01	Q2027275	A790598	M/P-XYLENE	0	20		23.5	ug/L	117.3	7.9
SAMPLE	A790958		Analysis Date/Time: 07-Dec-07 12:02							
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							

HERITAGE

SAB56048

25 ML PURGE - VOLATILE ORGANICS SW846-8260B

O510.7

R528766 Analyst: R SHAMP Run Date: 07-Dec-07
Analytical Reviewer: H WILLIAMS Review Date: 12-Dec-07

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SPI01	Q2027274	A790598	1,1-DICHLOROPROPENE	0	10		10.2	ug/L	102	
SPI01	Q2027274	A790598	ETHYL BENZENE	0	10		10.7	ug/L	107	
SPI01	Q2027274	A790598	HEXACHLOROBUTADIENE	0	10		10.8	ug/L	108	
SPI01	Q2027274	A790598	ISOPROPYLBENZENE (CUMENE)	0	10		10.8	ug/L	108	
SPI01	Q2027274	A790598	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	0	10		10.7	ug/L	107	
SPI01	Q2027274	A790598	DICHLOROMETHANE (METHYLENE CHLORIDE)	0	10		9.89	ug/L	98.9	
SPI01	Q2027274	A790598	METHYL ETHYL KETONE	0	50		41.3	ug/L	82.6	
SPI01	Q2027274	A790598	NAPHTHALENE	0	10		8.95	ug/L	89.5	
SPI01	Q2027274	A790598	N-PROPYLBENZENE	0	10		11.2	ug/L	112	
SPI01	Q2027274	A790598	STYRENE	0	10		9.36	ug/L	93.6	
SPI01	Q2027274	A790598	1,1,1,2-TETRACHLOROETHANE	0	10		10.8	ug/L	108	
SPI01	Q2027274	A790598	1,1,2,2-TETRACHLOROETHANE	0	10		10.5	ug/L	105	
SPI01	Q2027274	A790598	TETRACHLOROETHENE	0	10		11.3	ug/L	113	
SPI01	Q2027274	A790598	TOLUENE	0	10		9.78	ug/L	97.8	
SPI01	Q2027274	A790598	1,2,3-TRICHLOROBENZENE	0	10		10.2	ug/L	102	
SPI01	Q2027274	A790598	1,2,4-TRICHLOROBENZENE	0	10		10.1	ug/L	101	
SPI01	Q2027274	A790598	1,1,1-TRICHLOROETHANE	0	10		10.9	ug/L	109	
SPI01	Q2027274	A790598	1,1,2-TRICHLOROETHANE	0	10		9.21	ug/L	92.1	
SPI01	Q2027274	A790598	TRICHLOROETHENE	0	10		10.5	ug/L	105	
SPI01	Q2027274	A790598	TRICHLOROFLUOROMETHANE	0	10		10.1	ug/L	101	
SPI01	Q2027274	A790598	1,2,3-TRICHLOROPROPANE	0	10		10.5	ug/L	105	
SPI01	Q2027274	A790598	1,2,4-TRIMETHYLBENZENE	0	10		10.5	ug/L	105	
SPI01	Q2027274	A790598	1,3,5-TRIMETHYLBENZENE	0	10		10.5	ug/L	105	
SPI01	Q2027274	A790598	VINYL CHLORIDE	0	10		9.18	ug/L	91.8	
SPI01	Q2027274	A790598	METHYL-T-BUTYL ETHER (MTBE)	0	10		9.03	ug/L	90.3	
SPI01	Q2027274	A790598	O-XYLENE	0	10		10.3	ug/L	103	
SPI01	Q2027274	A790598	M/P-XYLENE	0	20		21.7	ug/L	108.5	
DPS01	Q2027275	A790598	Analysis Date/Time: 07-Dec-07 09:28							
DPS01	Q2027275	A790598	BENZENE	0	10		10.5	ug/L	105.1	2.6
DPS01	Q2027275	A790598	BROMOBENZENE	0	10		12	ug/L	119.9	7.7
DPS01	Q2027275	A790598	BROMOCHLOROMETHANE	0	10		10.8	ug/L	108.3	7.3
DPS01	Q2027275	A790598	BROMODICHLOROMETHANE	0	10		9.96	ug/L	99.6	2.4
DPS01	Q2027275	A790598	BROMOFORM	0	10		8.6	ug/L	86	8.4
DPS01	Q2027275	A790598	BROMOMETHANE	0	10		11.4	ug/L	113.7	8.1
DPS01	Q2027275	A790598	N-BUTYLBENZENE	0	10		12	ug/L	119.9	11.7
DPS01	Q2027275	A790598	SEC-BUTYLBENZENE	0	10		11.8	ug/L	118.1	9.4
DPS01	Q2027275	A790598	TERT-BUTYLBENZENE	0	10		11.6	ug/L	115.8	7.4
DPS01	Q2027275	A790598	CARBON TETRACHLORIDE	0	10		10.6	ug/L	106.1	2.6
DPS01	Q2027275	A790598	CHLOROBENZENE	0	10		11.6	ug/L	115.9	9
DPS01	Q2027275	A790598	DIBROMOCHLOROMETHANE	0	10		9.82	ug/L	98.2	7.6
DPS01	Q2027275	A790598	CHLOROETHANE	0	10		12	ug/L	120.3	7.8
DPS01	Q2027275	A790598	CHLOROFORM	0	10		10.8	ug/L	107.6	2.4
DPS01	Q2027275	A790598	CHLOROMETHANE	0	10		8.99	ug/L	89.9	5.1
DPS01	Q2027275	A790598	2-CHLOROTOLUENE (O-CHLOROTOLUENE)	0	10		11.7	ug/L	117.1	5.1
DPS01	Q2027275	A790598	4-CHLOROTOLUENE (P-CHLOROTOLUENE)	0	10	!	12.7	ug/L	127.2	9.8

HERITAGE

SAB56048

25 ML PURGE - VOLATILE ORGANICS SW846-8260B

O510.7

R528766 Analyst: R SHAMP Run Date: 07-Dec-07
Analytical Reviewer: H WILLIAMS Review Date: 12-Dec-07

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LCS01	Q2027269	METHOD 826	1,2,3-TRICHLOROPROPANE	10			10.7	ug/L	107	
LCS01	Q2027269	METHOD 826	1,2,4-TRIMETHYLBENZENE	10			10.3	ug/L	103	
LCS01	Q2027269	METHOD 826	1,3,5-TRIMETHYLBENZENE	10			10.7	ug/L	107	
LCS01	Q2027269	METHOD 826	VINYL CHLORIDE	10			9.7	ug/L	97	
LCS01	Q2027269	METHOD 826	METHYL-T-BUTYL ETHER (MTBE)	10			9.91	ug/L	99.1	
LCS01	Q2027269	METHOD 826	O-XYLENE	10			10.7	ug/L	107	
LCS01	Q2027269	METHOD 826	M/P-XYLENE	20			22.1	ug/L	110.5	
SPI01	Q2027274	A790598	Analysis Date/Time: 07-Dec-07 09:03							
SPI01	Q2027274	A790598	BENZENE	0	10		10.2	ug/L	102	
SPI01	Q2027274	A790598	BROMOBENZENE	0	10		11.1	ug/L	111	
SPI01	Q2027274	A790598	BROMOCHLOROMETHANE	0	10		10.1	ug/L	101	
SPI01	Q2027274	A790598	BROMODICHLOROMETHANE	0	10		9.72	ug/L	97.2	
SPI01	Q2027274	A790598	BROMOFORM	0	10		7.91	ug/L	79.1	
SPI01	Q2027274	A790598	BROMOMETHANE	0	10		10.5	ug/L	105	
SPI01	Q2027274	A790598	N-BUTYLBENZENE	0	10		10.7	ug/L	107	
SPI01	Q2027274	A790598	SEC-BUTYLBENZENE	0	10		10.8	ug/L	108	
SPI01	Q2027274	A790598	TERT-BUTYLBENZENE	0	10		10.8	ug/L	108	
SPI01	Q2027274	A790598	CARBON TETRACHLORIDE	0	10		10.3	ug/L	103	
SPI01	Q2027274	A790598	CHLOROBENZENE	0	10		10.6	ug/L	106	
SPI01	Q2027274	A790598	DIBROMOCHLOROMETHANE	0	10		9.1	ug/L	91	
SPI01	Q2027274	A790598	CHLOROETHANE	0	10		11.1	ug/L	111	
SPI01	Q2027274	A790598	CHLOROFORM	0	10		10.5	ug/L	105	
SPI01	Q2027274	A790598	CHLOROMETHANE	0	10		8.54	ug/L	85.4	
SPI01	Q2027274	A790598	2-CHLOROTOLUENE (O-CHLOROTOLUENE)	0	10		11.1	ug/L	111	
SPI01	Q2027274	A790598	4-CHLOROTOLUENE (P-CHLOROTOLUENE)	0	10		11.5	ug/L	115	
SPI01	Q2027274	A790598	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0	10		8.34	ug/L	83.4	
SPI01	Q2027274	A790598	1,2-DIBROMOETHANE (EDB)	0	10		9.47	ug/L	94.7	
SPI01	Q2027274	A790598	DIBROMOMETHANE	0	10		9.74	ug/L	97.4	
SPI01	Q2027274	A790598	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	0	10		11.2	ug/L	112	
SPI01	Q2027274	A790598	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	0	10		11.3	ug/L	113	
SPI01	Q2027274	A790598	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	0	10		11.3	ug/L	113	
SPI01	Q2027274	A790598	DICHLORODIFLUOROMETHANE	0	10		6.69	ug/L	66.9	
SPI01	Q2027274	A790598	1,1-DICHLOROETHANE	0	10		10	ug/L	100	
SPI01	Q2027274	A790598	1,2-DICHLOROETHANE	0	10		10.4	ug/L	104	
SPI01	Q2027274	A790598	1,1-DICHLOROETHENE	0	10		10.1	ug/L	101	
SPI01	Q2027274	A790598	CIS-1,2-DICHLOROETHENE	0	10		10.2	ug/L	102	
SPI01	Q2027274	A790598	TRANS-1,2-DICHLOROETHENE	0	10		10.5	ug/L	105	
SPI01	Q2027274	A790598	1,2-DICHLOROPROPANE	0	10		9.55	ug/L	95.5	
SPI01	Q2027274	A790598	1,3-DICHLOROPROPANE	0	10		10.4	ug/L	104	
SPI01	Q2027274	A790598	2,2-DICHLOROPROPANE	0	10		9.9	ug/L	99	

HERITAGE

SAB56048

25 ML PURGE - VOLATILE ORGANICS SW846-8260B

O510.7

R528766 Analyst: R SHAMP Run Date: 07-Dec-07
Analytical Reviewer: H WILLIAMS Review Date: 12-Dec-07

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LCS01	Q2027269	METHOD 826	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	10			10.9	ug/L	109	
LCS01	Q2027269	METHOD 826	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	10			11	ug/L	110	
LCS01	Q2027269	METHOD 826	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	10			10.7	ug/L	107	
LCS01	Q2027269	METHOD 826	DICHLORODIFLUOROMETHANE	10			8.72	ug/L	87.2	
LCS01	Q2027269	METHOD 826	1,1-DICHLOROETHANE	10			10.2	ug/L	102	
LCS01	Q2027269	METHOD 826	1,2-DICHLOROETHANE	10			11	ug/L	110	
LCS01	Q2027269	METHOD 826	1,1-DICHLOROETHENE	10			10.3	ug/L	103	
LCS01	Q2027269	METHOD 826	CIS-1,2-DICHLOROETHENE	10			9.99	ug/L	99.9	
LCS01	Q2027269	METHOD 826	TRANS-1,2-DICHLOROETHENE	10			10.7	ug/L	107	
LCS01	Q2027269	METHOD 826	1,2-DICHLOROPROPANE	10			9.99	ug/L	99.9	
LCS01	Q2027269	METHOD 826	1,3-DICHLOROPROPANE	10			10.5	ug/L	105	
LCS01	Q2027269	METHOD 826	2,2-DICHLOROPROPANE	10			9.98	ug/L	99.8	
LCS01	Q2027269	METHOD 826	1,1-DICHLOROPROPENE	10			9.8	ug/L	98	
LCS01	Q2027269	METHOD 826	ETHYL BENZENE	10			10.6	ug/L	106	
LCS01	Q2027269	METHOD 826	HEXACHLOROBUTADIENE	10			11.8	ug/L	118	
LCS01	Q2027269	METHOD 826	ISOPROPYLBENZENE (CUMENE)	10			12	ug/L	120	
LCS01	Q2027269	METHOD 826	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	10			11	ug/L	110	
LCS01	Q2027269	METHOD 826	DICHLOROMETHANE (METHYLENE CHLORIDE)	10			10.6	ug/L	106	
LCS01	Q2027269	METHOD 826	METHYL ETHYL KETONE	50			45.6	ug/L	91.2	
LCS01	Q2027269	METHOD 826	NAPHTHALENE	10			10	ug/L	100	
LCS01	Q2027269	METHOD 826	N-PROPYLBENZENE	10			11.1	ug/L	111	
LCS01	Q2027269	METHOD 826	STYRENE	10			10.5	ug/L	105	
LCS01	Q2027269	METHOD 826	1,1,1,2-TETRACHLOROETHANE	10			11	ug/L	110	
LCS01	Q2027269	METHOD 826	1,1,2,2-TETRACHLOROETHANE	10			10.2	ug/L	102	
LCS01	Q2027269	METHOD 826	TETRACHLOROETHENE	10			9.89	ug/L	98.9	
LCS01	Q2027269	METHOD 826	TOLUENE	10			10	ug/L	100	
LCS01	Q2027269	METHOD 826	1,2,3-TRICHLOROBENZENE	10			11.2	ug/L	112	
LCS01	Q2027269	METHOD 826	1,2,4-TRICHLOROBENZENE	10			10.7	ug/L	107	
LCS01	Q2027269	METHOD 826	1,1,1-TRICHLOROETHANE	10			10.5	ug/L	105	
LCS01	Q2027269	METHOD 826	1,1,2-TRICHLOROETHANE	10			9.91	ug/L	99.1	
LCS01	Q2027269	METHOD 826	TRICHLOROETHENE	10			10.6	ug/L	106	
LCS01	Q2027269	METHOD	TRICHLOROFLUOROMETHANE	10			12	ug/L	120	

HERITAGE

SAB56048

25 ML PURGE - VOLATILE ORGANICS SW846-8260B

O510.7

R528766 Analyst: R SHAMP Run Date: 07-Dec-07
Analytical Reviewer: H WILLIAMS Review Date: 12-Dec-07

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2027268		1,2,4-TRICHLOROBENZENE			BDL	0.39	ug/L		
BLA01	Q2027268		1,1,1-TRICHLOROETHANE			BDL	0.36	ug/L		
BLA01	Q2027268		1,1,2-TRICHLOROETHANE			BDL	0.47	ug/L		
BLA01	Q2027268		TRICHLOROETHENE			BDL	0.29	ug/L		
BLA01	Q2027268		TRICHLOROFLUOROMETHANE			BDL	0.39	ug/L		
BLA01	Q2027268		1,2,3-TRICHLOROPROPANE			BDL	0.47	ug/L		
BLA01	Q2027268		1,2,4-TRIMETHYLBENZENE			BDL	0.53	ug/L		
BLA01	Q2027268		1,3,5-TRIMETHYLBENZENE			BDL	0.44	ug/L		
BLA01	Q2027268		VINYL CHLORIDE			BDL	0.48	ug/L		
BLA01	Q2027268		METHYL-T-BUTYL ETHER (MTBE)			BDL	1.0	ug/L		
BLA01	Q2027268		O-XYLENE			BDL	0.48	ug/L		
BLA01	Q2027268		M/P-XYLENE			BDL	1.1	ug/L		
BLA01	Q2027268		DICHLOROETHANE-D4						109	
BLA01	Q2027268		TOLUENE-D8						94	
BLA01	Q2027268		4-BROMOFLUOROBENZENE						97	
BLA01	Q2027268		DIBROMOFLUOROMETHANE						105	
LCS01	Q2027269	METHOD 826	Analysis Date/Time: 07-Dec-07 07:41							
LCS01	Q2027269	METHOD 826	BENZENE	10			9.98	ug/L	99.8	
LCS01	Q2027269	METHOD 826	BROMOBENZENE	10			10.5	ug/L	105	
LCS01	Q2027269	METHOD 826	BROMOCHLOROMETHANE	10			10.6	ug/L	106	
LCS01	Q2027269	METHOD 826	BROMODICHLOROMETHANE	10			9.9	ug/L	99	
LCS01	Q2027269	METHOD 826	BROMOFORM	10			9.27	ug/L	92.7	
LCS01	Q2027269	METHOD 826	BROMOMETHANE	10			10.1	ug/L	101	
LCS01	Q2027269	METHOD 826	N-BUTYLBENZENE	10			10.7	ug/L	107	
LCS01	Q2027269	METHOD 826	SEC-BUTYLBENZENE	10			10.2	ug/L	102	
LCS01	Q2027269	METHOD 826	TERT-BUTYLBENZENE	10			10.8	ug/L	108	
LCS01	Q2027269	METHOD 826	CARBON TETRACHLORIDE	10			10.2	ug/L	102	
LCS01	Q2027269	METHOD 826	CHLOROBENZENE	10			10.7	ug/L	107	
LCS01	Q2027269	METHOD 826	DIBROMOCHLOROMETHANE	10			10.5	ug/L	105	
LCS01	Q2027269	METHOD 826	CHLOROETHANE	10			10.9	ug/L	109	
LCS01	Q2027269	METHOD 826	CHLOROFORM	10			11	ug/L	110	
LCS01	Q2027269	METHOD 826	CHLOROMETHANE	10			8.96	ug/L	89.6	
LCS01	Q2027269	METHOD 826	2-CHLOROTOLUENE (O-CHLOROTOLUENE)	10			10.6	ug/L	106	
LCS01	Q2027269	METHOD 826	4-CHLOROTOLUENE (P-CHLOROTOLUENE)	10			11.3	ug/L	113	
LCS01	Q2027269	METHOD 826	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	10			9.44	ug/L	94.4	
LCS01	Q2027269	METHOD 826	1,2-DIBROMOETHANE (EDB)	10			9.75	ug/L	97.5	
LCS01	Q2027269	METHOD 826	DIBROMOMETHANE	10			10.3	ug/L	103	

HERITAGE

SAB56048

25 ML PURGE - VOLATILE ORGANICS SW846-8260B

O510.7

R528766 Analyst: R SHAMP Run Date: 07-Dec-07
Analytical Reviewer: H WILLIAMS Review Date: 12-Dec-07

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2027268		BROMOFORM			BDL	0.39	ug/L		
BLA01	Q2027268		BROMOMETHANE			BDL	0.49	ug/L		
BLA01	Q2027268		N-BUTYLBENZENE			BDL	0.40	ug/L		
BLA01	Q2027268		SEC-BUTYLBENZENE			BDL	0.44	ug/L		
BLA01	Q2027268		TERT-BUTYLBENZENE			BDL	0.44	ug/L		
BLA01	Q2027268		CARBON TETRACHLORIDE			BDL	0.37	ug/L		
BLA01	Q2027268		CHLOROBENZENE			BDL	0.40	ug/L		
BLA01	Q2027268		DIBROMOCHLOROMETHANE			BDL	0.40	ug/L		
BLA01	Q2027268		CHLOROETHANE			BDL	0.49	ug/L		
BLA01	Q2027268		CHLOROFORM			BDL	0.40	ug/L		
BLA01	Q2027268		CHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q2027268		2-CHLOROTOLUENE (O-CHLOROTOLUENE)			BDL	0.40	ug/L		
BLA01	Q2027268		4-CHLOROTOLUENE (P-CHLOROTOLUENE)			BDL	0.39	ug/L		
BLA01	Q2027268		1,2-DIBROMO-3-CHLOROPROPANE (DBCP)			BDL	0.49	ug/L		
BLA01	Q2027268		1,2-DIBROMOETHANE (EDB)			BDL	0.40	ug/L		
BLA01	Q2027268		DIBROMOMETHANE			BDL	0.42	ug/L		
BLA01	Q2027268		1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)			BDL	0.48	ug/L		
BLA01	Q2027268		1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)			BDL	0.43	ug/L		
BLA01	Q2027268		1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)			BDL	0.46	ug/L		
BLA01	Q2027268		DICHLORODIFLUOROMETHANE			BDL	0.74	ug/L		
BLA01	Q2027268		1,1-DICHLOROETHANE			BDL	0.36	ug/L		
BLA01	Q2027268		1,2-DICHLOROETHANE			BDL	0.43	ug/L		
BLA01	Q2027268		1,1-DICHLOROETHENE			BDL	0.29	ug/L		
BLA01	Q2027268		CIS-1,2-DICHLOROETHENE			BDL	0.36	ug/L		
BLA01	Q2027268		TRANS-1,2-DICHLOROETHENE			BDL	0.40	ug/L		
BLA01	Q2027268		1,2-DICHLOROPROPANE			BDL	0.32	ug/L		
BLA01	Q2027268		1,3-DICHLOROPROPANE			BDL	0.51	ug/L		
BLA01	Q2027268		2,2-DICHLOROPROPANE			BDL	0.39	ug/L		
BLA01	Q2027268		1,1-DICHLOROPROPENE			BDL	0.40	ug/L		
BLA01	Q2027268		ETHYL BENZENE			BDL	0.42	ug/L		
BLA01	Q2027268		HEXACHLOROBUTADIENE			BDL	0.48	ug/L		
BLA01	Q2027268		ISOPROPYLBENZENE (CUMENE)			BDL	0.44	ug/L		
BLA01	Q2027268		4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)			BDL	0.48	ug/L		
BLA01	Q2027268		DICHLOROMETHANE (METHYLENE CHLORIDE)			BDL	1.0	ug/L		
BLA01	Q2027268		METHYL ETHYL KETONE			BDL	3.3	ug/L		
BLA01	Q2027268		NAPHTHALENE			BDL	0.83	ug/L		
BLA01	Q2027268		N-PROPYLBENZENE			BDL	0.39	ug/L		
BLA01	Q2027268		STYRENE			BDL	0.48	ug/L		
BLA01	Q2027268		1,1,1,2-TETRACHLOROETHANE			BDL	0.39	ug/L		
BLA01	Q2027268		1,1,2,2-TETRACHLOROETHANE			BDL	0.39	ug/L		
BLA01	Q2027268		TETRACHLOROETHENE			BDL	0.47	ug/L		
BLA01	Q2027268		TOLUENE			BDL	0.35	ug/L		
BLA01	Q2027268		1,2,3-TRICHLOROBENZENE			BDL	0.44	ug/L		

HERITAGE

SAB56048

25 ML PURGE - VOLATILE ORGANICS SW846-8260B

O510.7

R528766 Analyst: R SHAMP Run Date: 07-Dec-07
Analytical Reviewer: H WILLIAMS Review Date: 12-Dec-07

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
			DICHLOROBENZENE)							
CCVD	Q2027267		DICHLORODIFLUOROMETHANE	0.2349			0.1626			30.8
CCVD	Q2027267		1,1-DICHLOROETHANE	0.4415			0.4781			8.3
CCVD	Q2027267		1,2-DICHLOROETHANE	0.3287			0.3753			14.2
CCVD	Q2027267		1,1-DICHLOROETHENE	0.2300			0.2519			9.5
CCVD	Q2027267		CIS-1,2-DICHLOROETHENE	0.2742			0.3017			10
CCVD	Q2027267		TRANS-1,2-DICHLOROETHENE	0.2465			0.2798			13.5
CCVD	Q2027267		1,2-DICHLOROPROPANE	0.2328			0.2365			1.6
CCVD	Q2027267		1,3-DICHLOROPROPANE	0.9629			1.0442			8.4
CCVD	Q2027267		2,2-DICHLOROPROPANE	0.3084			0.3373			9.4
CCVD	Q2027267		1,1-DICHLOROPROPENE	0.1238			0.1325			7
CCVD	Q2027267		ETHYL BENZENE	0.9278			1.0393			12
CCVD	Q2027267		HEXACHLOROBUTADIENE	0.5581			0.6711			20.2
CCVD	Q2027267		ISOPROPYLBENZENE (CUMENE)	2.7659			3.0008			8.5
CCVD	Q2027267		4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	2.7986			3.0417			8.7
CCVD	Q2027267		DICHLOROMETHANE (METHYLENE CHLORIDE)	10		LIN	11.63			16.3
CCVD	Q2027267		METHYL ETHYL KETONE	0.0416			0.0385			7.5
CCVD	Q2027267		NAPHTHALENE	3.5761			3.7831			5.8
CCVD	Q2027267		N-PROPYLBENZENE	0.3779			0.4212			11.5
CCVD	Q2027267		STYRENE	1.8993			2.0163			6.2
CCVD	Q2027267		1,1,1,2-TETRACHLOROETHANE	0.5934			0.6821			14.9
CCVD	Q2027267		1,1,2,2-TETRACHLOROETHANE	0.8271			0.8314			0.5
CCVD	Q2027267		TETRACHLOROETHENE	0.7931			0.9745			22.9
CCVD	Q2027267		TOLUENE	0.9828			1.0262			4.4
CCVD	Q2027267		1,2,3-TRICHLOROBENZENE	1.1500			1.3585			18.1
CCVD	Q2027267		1,2,4-TRICHLOROBENZENE	1.2196			1.3775			12.9
CCVD	Q2027267		1,1,1-TRICHLOROETHANE	0.3643			0.4086			12.2
CCVD	Q2027267		1,1,2-TRICHLOROETHANE	0.2088			0.2061			1.3
CCVD	Q2027267		TRICHLOROETHENE	0.2599			0.2963			14
CCVD	Q2027267		TRICHLOROFLUOROMETHANE	0.2755			0.3283			19.2
CCVD	Q2027267		1,2,3-TRICHLOROPROPANE	0.2783			0.2967			6.6
CCVD	Q2027267		1,2,4-TRIMETHYLBENZENE	2.6934			2.9448			9.3
CCVD	Q2027267		1,3,5-TRIMETHYLBENZENE	2.6045			2.8740			10.3
CCVD	Q2027267		VINYL CHLORIDE	0.2747			0.2577			6.2
CCVD	Q2027267		METHYL-T-BUTYL ETHER (MTBE)	0.8395			0.8475			1
CCVD	Q2027267		O-XYLENE	1.1609			1.2384			6.7
CCVD	Q2027267		M/P-XYLENE	1.1463			1.2721			11
CCVD	Q2027267		DICHLOROETHANE-D4	0.2931			0.3224			10
CCVD	Q2027267		TOLUENE-D8	0.9203			0.8841			3.9
CCVD	Q2027267		4-BROMOFLUOROBENZENE	0.7775			0.7745			0.4
CCVD	Q2027267		DIBROMOFLUOROMETHANE	0.2231			0.2370			6.2
BLA01	Q2027268		Analysis Date/Time: 07-Dec-07 06:40							
BLA01	Q2027268		BENZENE			BDL	0.33	ug/L		
BLA01	Q2027268		BROMOBENZENE			BDL	0.49	ug/L		
BLA01	Q2027268		BROMOCHLOROMETHANE			BDL	0.47	ug/L		
BLA01	Q2027268		BROMODICHLOROMETHANE			BDL	0.40	ug/L		

HERITAGE

SAB56048

25 ML PURGE - VOLATILE ORGANICS SW846-8260B

O510.7

R528766 Analyst: R SHAMP Run Date: 07-Dec-07
Analytical Reviewer: H WILLIAMS Review Date: 12-Dec-07

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2022909		1,1,1,2-TETRACHLOROETHANE	0.5934						6.5
CAL01	Q2022909		1,1,2,2-TETRACHLOROETHANE	0.8271						7
CAL01	Q2022909		TETRACHLOROETHENE	0.7931						8.1
CAL01	Q2022909		TOLUENE	0.9828						12.4
CAL01	Q2022909		1,2,3-TRICHLOROBENZENE	1.1500						3.3
CAL01	Q2022909		1,2,4-TRICHLOROBENZENE	1.2196						4.6
CAL01	Q2022909		1,1,1-TRICHLOROETHANE	0.3643						11.4
CAL01	Q2022909		1,1,2-TRICHLOROETHANE	0.2088						7.9
CAL01	Q2022909		TRICHLOROETHENE	0.2599						8.8
CAL01	Q2022909		TRICHLOROFLUOROMETHANE	0.2755						13
CAL01	Q2022909		1,2,3-TRICHLOROPROPANE	0.2783						8
CAL01	Q2022909		1,2,4-TRIMETHYLBENZENE	2.6934						9.5
CAL01	Q2022909		1,3,5-TRIMETHYLBENZENE	2.6045						10.2
CAL01	Q2022909		VINYL CHLORIDE	0.2747						10.2
CAL01	Q2022909		METHYL-T-BUTYL ETHER (MTBE)	0.8395						7.3
CAL01	Q2022909		O-XYLENE	1.1609						6.6
CAL01	Q2022909		M/P-XYLENE	1.1463						9.1
CAL01	Q2022909		DICHLOROETHANE-D4	0.2931						2.1
CAL01	Q2022909		TOLUENE-D8	0.9203						2.1
CAL01	Q2022909		4-BROMOFLUOROBENZENE	0.7775						2.9
CAL01	Q2022909		DIBROMOFLUOROMETHANE	0.2231						2.9
CCVD	Q2027267		Analysis Date/Time: 07-Dec-07 06:12							
CCVD	Q2027267		BENZENE	0.9800			1.0661			8.8
CCVD	Q2027267		BROMOBENZENE	1.1489			1.2651			10.1
CCVD	Q2027267		BROMOCHLOROMETHANE	0.1233			0.1412			14.5
CCVD	Q2027267		BROMODICHLOROMETHANE	0.3294			0.3526			7
CCVD	Q2027267		BROMOFORM	0.4658			0.4295			7.8
CCVD	Q2027267		BROMOMETHANE	0.1333			0.1418			6.4
CCVD	Q2027267		N-BUTYLBENZENE	1.5042			1.6654			10.7
CCVD	Q2027267		SEC-BUTYLBENZENE	3.4556			3.7759			9.3
CCVD	Q2027267		TERT-BUTYLBENZENE	1.4405			1.5831			9.9
CCVD	Q2027267		CARBON TETRACHLORIDE	0.3184			0.3544			11.3
CCVD	Q2027267		CHLOROBENZENE	1.6270			1.8062			11
CCVD	Q2027267		DIBROMOCHLOROMETHANE	0.6214			0.6539			5.2
CCVD	Q2027267		CHLOROETHANE	0.1489			0.1624			9.1
CCVD	Q2027267		CHLOROFORM	0.4326			0.4914			13.6
CCVD	Q2027267		CHLOROMETHANE	0.2546			0.2276			10.6
CCVD	Q2027267		2-CHLOROTOLUENE (O-CHLOROTOLUENE)	0.7153			0.8033			12.3
CCVD	Q2027267		4-CHLOROTOLUENE (P-CHLOROTOLUENE)	0.6653			0.7497			12.7
CCVD	Q2027267		1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0.2583			0.2530			2.1
CCVD	Q2027267		1,2-DIBROMOETHANE (EDB)	0.2224			0.2178			2.1
CCVD	Q2027267		DIBROMOMETHANE	0.1525			0.1653			8.4
CCVD	Q2027267		1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	1.4518			1.6354			12.6
CCVD	Q2027267		1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	1.4403			1.6241			12.8
CCVD	Q2027267		1,4-DICHLOROBENZENE (P-	1.4689			1.6986			15.6

HERITAGE

SAB56048

25 ML PURGE - VOLATILE ORGANICS SW846-8260B

O510.7

R528766 Analyst: R SHAMP Run Date: 07-Dec-07 Instrument: GC/MS VOA
Analytical Reviewer: H WILLIAMS Review Date: 12-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2022909		Analysis Date/Time: 29-Nov-07 10:28							
CAL01	Q2022909		BENZENE	0.9800						10.6
CAL01	Q2022909		BROMOBENZENE	1.1489						5.9
CAL01	Q2022909		BROMOCHLOROMETHANE	0.1233						6.7
CAL01	Q2022909		BROMODICHLOROMETHANE	0.3294						9.4
CAL01	Q2022909		BROMOFORM	0.4658						6
CAL01	Q2022909		BROMOMETHANE	0.1333						12.1
CAL01	Q2022909		N-BUTYLBENZENE	1.5042						9.1
CAL01	Q2022909		SEC-BUTYLBENZENE	3.4556						11
CAL01	Q2022909		TERT-BUTYLBENZENE	1.4405						10.2
CAL01	Q2022909		CARBON TETRACHLORIDE	0.3184						8
CAL01	Q2022909		CHLOROBENZENE	1.6270						8
CAL01	Q2022909		DIBROMOCHLOROMETHANE	0.6214						6.5
CAL01	Q2022909		CHLOROETHANE	0.1489						14.1
CAL01	Q2022909		CHLOROFORM	0.4326						6.6
CAL01	Q2022909		CHLOROMETHANE	0.2546						7.5
CAL01	Q2022909		2-CHLOROTOLUENE (O-CHLOROTOLUENE)	0.7153						5.2
CAL01	Q2022909		4-CHLOROTOLUENE (P-CHLOROTOLUENE)	0.6653						9.2
CAL01	Q2022909		1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0.2583						10.9
CAL01	Q2022909		1,2-DIBROMOETHANE (EDB)	0.2224						8.3
CAL01	Q2022909		DIBROMOMETHANE	0.1525						5.7
CAL01	Q2022909		1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	1.4518						5.4
CAL01	Q2022909		1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	1.4403						6
CAL01	Q2022909		1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	1.4689						6.4
CAL01	Q2022909		DICHLORODIFLUOROMETHANE	0.2349						10.1
CAL01	Q2022909		1,1-DICHLOROETHANE	0.4415						10.4
CAL01	Q2022909		1,2-DICHLOROETHANE	0.3287						6.6
CAL01	Q2022909		1,1-DICHLOROETHENE	0.2300						9.4
CAL01	Q2022909		CIS-1,2-DICHLOROETHENE	0.2742						9.5
CAL01	Q2022909		TRANS-1,2-DICHLOROETHENE	0.2465						9.3
CAL01	Q2022909		1,2-DICHLOROPROPANE	0.2328						8.5
CAL01	Q2022909		1,3-DICHLOROPROPANE	0.9629						6.7
CAL01	Q2022909		2,2-DICHLOROPROPANE	0.3084						8.1
CAL01	Q2022909		1,1-DICHLOROPROPENE	0.1238						9.7
CAL01	Q2022909		ETHYL BENZENE	0.9278						8.2
CAL01	Q2022909		HEXACHLOROBUTADIENE	0.5581						8.8
CAL01	Q2022909		ISOPROPYLBENZENE (CUMENE)	2.7659						9.5
CAL01	Q2022909		4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	2.7986						11.9
CAL01	Q2022909		DICHLOROMETHANE (METHYLENE CHLORIDE)			LIN				0.998
CAL01	Q2022909		METHYL ETHYL KETONE	0.0416						6.2
CAL01	Q2022909		NAPHTHALENE	3.5761						4.8
CAL01	Q2022909		N-PROPYLBENZENE	0.3779						7
CAL01	Q2022909		STYRENE	1.8993						8.7

HERITAGE

SAB56048

LEAD TRACE ICP SW846-6010B **M116.0**
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528615 Analyst: J KRAMER Run Date: 08-Dec-07
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run: R528659							

R528645 Analyst: J KRAMER Run Date: 07-Dec-07 Instrument: TRACE ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	LEAD			<	0.00400	mg/L		

R528659 Analyst: J KRAMER Run Date: 09-Dec-07 Instrument: TRACE ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	LEAD	1			0.989	mg/L	98.9	
BLA02	Q2025915	NA	LEAD			<	0.00200	mg/L		
LCS	Q2025916	SPEX	LEAD	0.5			0.476	mg/L	95.2	
SPI02	Q2025917	A791088	LEAD	0	0.500		0.461	mg/L	92.2	
DPS02	Q2025918	A791088	LEAD	0	0.500		0.461	mg/L	92.2	0
CDL01	Q2026315	PERKIN ELM	LEAD	0.100			0.0983	mg/L	98.3	
ICS-AB	Q2026299	PERKIN ELM	LEAD	1.00			0.924	mg/L	92.4	
SER01	Q2026328	A791512	LEAD	0		BDL		mg/L		
CCV	Q2026309	INORGANIC	LEAD	5.00			4.82	mg/L	96.4	
BLA01	Q2026294	NA	LEAD			<	0.00200	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026310	INORGANIC	LEAD	5.00			4.92	mg/L	98.4	
BLA01	Q2026295	NA	LEAD			<	0.00200	mg/L		
BLA02	Q2025637	NA	LEAD			<	0.00200	mg/L		
LCS	Q2025638	INORGANIC	LEAD	0.5			0.493	mg/L	98.6	
SER01	Q2026326	A790897	LEAD	0		CNA	0.00607	mg/L		
DUP02	Q2025639	A790897	LEAD	0		BDL		mg/L		
SPI02	Q2025640	A790897	LEAD	0	0.5		0.479	mg/L	95.8	
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
CCV	Q2026311	INORGANIC	LEAD	5.00			4.79	mg/L	95.8	
BLA01	Q2026296	NA	LEAD			<	0.00200	mg/L		
CDL01	Q2026319	INORGANIC	LEAD	0.01			0.00930	mg/L	93.0	
ICS-AB	Q2026300	PERKIN ELM	LEAD	1.00			0.909	mg/L	90.9	

R528708 Analyst: J KRAMER Run Date: 10-Dec-07 Instrument: TRACE ICP
Analytical Reviewer: S ENDERSEN Review Date: 11-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LCS	Q2025624	SPEX	LEAD	0.5			0.486	mg/L	97.2	

HERITAGE

SAB56048

NICKEL ICP SW846-6010B **M122.3**
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528645 Analyst: J KRAMER Run Date: 07-Dec-07
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CCV	Q2026068	INORGANIC	NICKEL	5.00			4.89	mg/L	97.8	
BLA01	Q2026050	NA	NICKEL			<	0.00200	mg/L		
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
CCV	Q2026069	INORGANIC	NICKEL	5.00			4.89	mg/L	97.8	
BLA01	Q2026051	NA	NICKEL			<	0.00200	mg/L		
SER01	Q2026091	A790942	NICKEL	36.9			36.9	mg/L		0
CDL01	Q2026082	INORGANIC	NICKEL	0.005			0.00549	mg/L	109.8	
ICS-AB	Q2026061	PERKIN ELM	NICKEL	1.00			0.963	mg/L	96.3	

R528659 Analyst: J KRAMER Run Date: 09-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	NICKEL	1			0.981	mg/L	98.1	
BLA02	Q2025915	NA	NICKEL			<	0.00200	mg/L		
LCS	Q2025916	SPEX	NICKEL	0.5			0.479	mg/L	95.8	
SPI02	Q2025917	A791088	NICKEL	0.00696	0.500		0.476	mg/L	93.8	
DPS02	Q2025918	A791088	NICKEL	0.00696	0.500		0.465	mg/L	91.6	2.4
CDL01	Q2026315	PERKIN ELM	NICKEL	0.080			0.0779	mg/L	97.4	
ICS-AB	Q2026299	PERKIN ELM	NICKEL	1.00			0.915	mg/L	91.5	
SER01	Q2026328	A791512	NICKEL	0		BDL		mg/L		
CCV	Q2026309	INORGANIC	NICKEL	5.00			4.79	mg/L	95.8	
BLA01	Q2026294	NA	NICKEL			<	0.00200	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026310	INORGANIC	NICKEL	5.00			4.91	mg/L	98.2	
BLA01	Q2026295	NA	NICKEL			<	0.00200	mg/L		
SER01	Q2026326	A790897	NICKEL	0		BDL		mg/L		
CDL01	Q2026319	INORGANIC	NICKEL	0.005			0.00460	mg/L	92.0	
ICS-AB	Q2026300	PERKIN ELM	NICKEL	1.00			0.900	mg/L	90.0	

LEAD TRACE ICP SW846-6010B **M116.0**
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Analyst: P MATAKA Run Date: 07-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528708							
SAMPLE	A790958	Rep: 0	Analytical Run: R528659							
BLA02	Q2025637	NA	Analytical Run: R528659							
LCS	Q2025638	INORGANIC	Analytical Run: R528659							
DUP02	Q2025639	A790897	Analytical Run: R528659							
SPI02	Q2025640	A790897	Analytical Run: R528659							

R528615 Analyst: J KRAMER Run Date: 08-Dec-07 Instrument: PREP

HERITAGE

SAB56048

IRON ICP SW846-6010B M115.3
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528659 Analyst: J KRAMER Run Date: 09-Dec-07
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CCV	Q2026309	INORGANIC	IRON	5.00			4.80	mg/L	96.0	
BLA01	Q2026294	NA	IRON			<	0.00800	mg/L		
SAMPLE	A790959		See Certificate of Analysis. Rep: 0							
SAMPLE	A790960		See Certificate of Analysis. Rep: 0							
CCV	Q2026310	INORGANIC	IRON	5.00			4.93	mg/L	98.6	
BLA01	Q2026295	NA	IRON			<	0.00800	mg/L		
SER01	Q2026326	A790897	IRON	0.241		CNA	0.243	mg/L		
DUP02	Q2025639	A790897	IRON	0.241			0.246	mg/L		2.0
CDL01	Q2026319	INORGANIC	IRON	0.02			0.0206	mg/L	103.0	
ICS-A	Q2026324	PERKIN-ELM	IRON	200			177	mg/L	88.5	
ICS-AB	Q2026300	PERKIN ELM	IRON	200			180	mg/L	90.0	

NICKEL ICP SW846-6010B M122.3
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Analyst: P MATAKA Run Date: 07-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528645							
DUP02	Q2025625	A790897	Analytical Run: R528645							
SPI02	Q2025626	A790897	Analytical Run: R528645							
SAMPLE	A790958	Rep: 0	Analytical Run: R528645							

R528615 Analyst: J KRAMER Run Date: 08-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run. R528659							

R528645 Analyst: J KRAMER Run Date: 07-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026093	PERKIN ELM	NICKEL	1			1.06	mg/L	106.0	
CDL01	Q2026083	INORGANIC	NICKEL	10			10.0	mg/L	100 0	
ICS-AB	Q2026060	PERKIN ELM	NICKEL	1.00			0.976	mg/L	97.6	
SER01	Q2026089	A791045	NICKEL	0		BDL		mg/L		
BLA02	Q2025623	NA	NICKEL			<	0.00200	mg/L		
LCS	Q2025624	SPEX	NICKEL	0.5			0.486	mg/L	97.2	
DUP02	Q2025625	A790897	NICKEL	0.00731		CNA	0.00615	mg/L		
SPI02	Q2025626	A790897	NICKEL	0.00731	0.500		0.488	mg/L	96 1	

HERITAGE

SAB56048

IRON ICP SW846-6010B **M115.3**

Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528615 Analyst: J KRAMER Run Date: 08-Dec-07
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run. R528659							

R528645 Analyst: J KRAMER Run Date: 07-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026093	PERKIN ELM	IRON	1			1.05	mg/L	105.0	
CDL01	Q2026083	INORGANIC	IRON	10			10.0	mg/L	100.0	
ICS-A	Q2026084	PERKIN-ELM	IRON	200			192	mg/L	96.0	
ICS-AB	Q2026060	PERKIN ELM	IRON	200			195	mg/L	97.5	
BLA02	Q2025623	NA	IRON			<	0.00800	mg/L		
LCS	Q2025624	SPEX	IRON	1			0.969	mg/L	96.9	
SER01	Q2026088	A790897	IRON	0.234		CNA	0.210	mg/L		
SPI02	Q2025626	A790897	IRON	0.234	1.00		1.22	mg/L	98.6	
CCV	Q2026068	INORGANIC	IRON	5.00			4.92	mg/L	98.4	
BLA01	Q2026050	NA	IRON			<	0.00800	mg/L		
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
CCV	Q2026069	INORGANIC	IRON	5.00			4.93	mg/L	98.6	
BLA01	Q2026051	NA	IRON			<	0.00800	mg/L		
SER01	Q2026086	A790513	IRON	107			103	mg/L		3.8
CDL01	Q2026082	INORGANIC	IRON	0.02			0.0136	mg/L	68.0	
ICS-A	Q2026085	PERKIN-ELM	IRON	200			187	mg/L	93.5	
ICS-AB	Q2026061	PERKIN ELM	IRON	200			192	mg/L	96.0	

Q2026088 There was possible matrix interference for K
Q2026088 as indicated by the serial dilution results.

R528659 Analyst: J KRAMER Run Date. 09-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	IRON	1			0.998	mg/L	99.8	
BLA02	Q2025915	NA	IRON			<	0.00800	mg/L		
LCS	Q2025916	SPEX	IRON	1			0.962	mg/L	96.2	
SPI02	Q2025917	A791088	IRON	0.476	1.00		1.44	mg/L	96.4	
DPS02	Q2025918	A791088	IRON	0.476	1.00		1.39	mg/L	91.4	5.3
CDL01	Q2026318	INORGANIC	IRON	0.02			0.0199	mg/L	99.5	
ICS-A	Q2026323	PERKIN-ELM	IRON	200			176	mg/L	88.0	
ICS-AB	Q2026299	PERKIN ELM	IRON	200			182	mg/L	91.0	
SER01	Q2026328	A791512	IRON	0.506			0.499	mg/L		1.4

HERITAGE

SAB56048

THALLIUM TRACE ICP SW846-6010B **M134.0**
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528659 Analyst: J KRAMER Run Date: 09-Dec-07
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
		ELM								
BLA02	Q2025915	NA	THALLIUM			<	0.00400	mg/L		
LCS	Q2025916	SPEX	THALLIUM	3			2.87	mg/L	95.7	
SPI02	Q2025917	A791088	THALLIUM	0	3		2.78	mg/L	92.7	
DPS02	Q2025918	A791088	THALLIUM	0	3		2.71	mg/L	90.3	2.6
CDL01	Q2026315	PERKIN ELM	THALLIUM	0.02			0.0197	mg/L	98.5	
ICS-AB	Q2026299	PERKIN ELM	THALLIUM	0.1			0.0910	mg/L	91.0	
SER01	Q2026328	A791512	THALLIUM	0		CNA	0.0128	mg/L		
CCV	Q2026309	INORGANIC	THALLIUM	2			1.88	mg/L	94.0	
BLA01	Q2026294	NA	THALLIUM			<	0.00400	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026310	INORGANIC	THALLIUM	2			1.92	mg/L	96.0	
BLA01	Q2026295	NA	THALLIUM			<	0.00400	mg/L		
BLA02	Q2025637	NA	THALLIUM			<	0.00400	mg/L		
LCS	Q2025638	INORGANIC	THALLIUM	3			2.95	mg/L	98.3	
SER01	Q2026326	A790897	THALLIUM	0		CNA	0.0208	mg/L		
DUP02	Q2025639	A790897	THALLIUM	0		BDL		mg/L		
SPI02	Q2025640	A790897	THALLIUM	0	3		2.78	mg/L	92.7	
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
CCV	Q2026311	INORGANIC	THALLIUM	2			1.87	mg/L	93.5	
BLA01	Q2026296	NA	THALLIUM			<	0.00400	mg/L		
CDL01	Q2026319	INORGANIC	THALLIUM	0.01			0.0108	mg/L	108.0	
ICS-AB	Q2026300	PERKIN ELM	THALLIUM	0.1			0.0896	mg/L	89.6	

R528708 Analyst: J KRAMER Run Date: 10-Dec-07 Instrument: TRACE ICP
Analytical Reviewer: S ENDERSEN Review Date: 11-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LCS	Q2025624	SPEX	THALLIUM	3			2.86	mg/L	95.3	

IRON ICP SW846-6010B **M115.3**
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Analyst: P MATAKA Run Date: 07-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528645							
SPI02	Q2025626	A790897	Analytical Run: R528645							
SAMPLE	A790958	Rep: 0	Analytical Run. R528645							
DUP02	Q2025639	A790897	Analytical Run: R528659							

R528615 Analyst: J KRAMER Run Date: 08-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD

HERITAGE

SAB56048

SEMI-VOLATILE ORGANICS (BASE/NEUTRAL/ACID FRACTIONS) SW846-8270C — O505.3
Prep : GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

R528802 Analytical — Analyst: J MINNIEAR, II — Reviewer: L SMITH — Run Date: 10-Dec-07 — Review Date: 12-Dec-07

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LCS	Q2025492	HLI	2,4-DIMETHYLPHENOL	100			66.1	ug/L	66.1	
LCS	Q2025492	HLI	4,6-DINITRO-O-CRESOL(2-METHYL-4,6-DINITROPHEN	100			93.6	ug/L	93.6	
LCS	Q2025492	HLI	2,4-DINITROPHENOL	100			85.5	ug/L	85.5	
LCS	Q2025492	HLI	2-METHYLPHENOL (O-CRESOL)	100			72.5	ug/L	72.5	
LCS	Q2025492	HLI	4-METHYLPHENOL (P-CRESOL)	100			63.7	ug/L	63.7	
LCS	Q2025492	HLI	2-NITROPHENOL	100			86.2	ug/L	86.2	
LCS	Q2025492	HLI	4-NITROPHENOL	100			30.3	ug/L	30.3	
LCS	Q2025492	HLI	PENTACHLOROPHENOL	100			86.6	ug/L	86.6	
LCS	Q2025492	HLI	PHENOL	100			35.5	ug/L	35.5	
LCS	Q2025492	HLI	2,3,4,6-TETRACHLOROPHENOL	100			90	ug/L	90	
LCS	Q2025492	HLI	2,4,5-TRICHLOROPHENOL	100			80.4	ug/L	80.4	
LCS	Q2025492	HLI	2,4,6-TRICHLOROPHENOL	100			90.1	ug/L	90.1	

THALLIUM TRACE ICP SW846-6010B — M134.0
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Prep — Analyst: P MATAKA — Reviewer: S ENDERSEN — Run Date: 07-Dec-07 — Review Date: 10-Dec-07 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528708							
SAMPLE	A790958	Rep: 0	Analytical Run: R528659							
BLA02	Q2025637	NA	Analytical Run: R528659							
LCS	Q2025638	INORGANIC	Analytical Run: R528659							
DUP02	Q2025639	A790897	Analytical Run: R528659							
SPI02	Q2025640	A790897	Analytical Run: R528659							

R528615 Prep — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 08-Dec-07 — Review Date: 10-Dec-07 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run. R528659							

R528645 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 07-Dec-07 — Review Date: 10-Dec-07 — Instrument: TRACE ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	THALLIUM			<	0.00400	mg/L		

R528659 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 09-Dec-07 — Review Date: 10-Dec-07 — Instrument. TRACE ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN	THALLIUM	1			0.984	mg/L	98.4	

HERITAGE

SAB56048

SEMI-VOLATILE ORGANICS (BASE/NEUTRAL/ACID FRACTIONS) SW846-8270C **O505.3**
Prep : GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

R528802 Analyst: J MINNIEAR, II Run Date: 10-Dec-07
Analytical Reviewer: L SMITH Review Date: 12-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LCS	Q2025492	HLI	BIS(2-ETHYLHEXYL)PHTHALATE	100			85.7	ug/L	85.7	
LCS	Q2025492	HLI	4-BROMODIPHENYL ETHER	100			95.1	ug/L	95.1	
LCS	Q2025492	HLI	CARBAZOLE	100			91.5	ug/L	91.5	
LCS	Q2025492	HLI	4-CHLOROANILINE	100			98.4	ug/L	98.4	
LCS	Q2025492	HLI	2-CHLORONAPHTHALENE	100			104	ug/L	104	
LCS	Q2025492	HLI	4-CHLOROPHENYL-PHENYLETHER	100			83.3	ug/L	83.3	
LCS	Q2025492	HLI	CHRYSENE	100			76.2	ug/L	76.2	
LCS	Q2025492	HLI	DIBENZ(A,H)ANTHRACENE	50			47.5	ug/L	95	
LCS	Q2025492	HLI	DIBENZOFURAN	100			84.8	ug/L	84.8	
LCS	Q2025492	HLI	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	100			85.1	ug/L	85.1	
LCS	Q2025492	HLI	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	100			83.3	ug/L	83.3	
LCS	Q2025492	HLI	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	100			84	ug/L	84	
LCS	Q2025492	HLI	3,3'-DICHLOROBENZIDINE	100			108	ug/L	108	
LCS	Q2025492	HLI	DIETHYLPHTHALATE	100			82.4	ug/L	82.4	
LCS	Q2025492	HLI	DIMETHYLPHTHALATE	100			84.5	ug/L	84.5	
LCS	Q2025492	HLI	DI-N-BUTYLPHTHALATE	100			83.9	ug/L	83.9	
LCS	Q2025492	HLI	2,4-DINITROTOLUENE	100			83.2	ug/L	83.2	
LCS	Q2025492	HLI	2,6-DINITROTOLUENE	100			90.1	ug/L	90.1	
LCS	Q2025492	HLI	DI-N-OCTYLPHTHALATE	100			86.6	ug/L	86 6	
LCS	Q2025492	HLI	FLUORANTHENE	100			83.4	ug/L	83.4	
LCS	Q2025492	HLI	FLUORENE	100			87	ug/L	87	
LCS	Q2025492	HLI	HEXACHLOROBENZENE	100			93	ug/L	93	
LCS	Q2025492	HLI	HEXACHLOROBUTADIENE	100			72.5	ug/L	72.5	
LCS	Q2025492	HLI	HEXACHLOROCYCLOPENTADIENE-	100			62.5	ug/L	62.5	
LCS	Q2025492	HLI	HEXACHLOROETHANE	100			76.2	ug/L	76.2	
LCS	Q2025492	HLI	INDENO(1,2,3-CD)PYRENE	100			81.8	ug/L	81.8	
LCS	Q2025492	HLI	ISOPHORONE	100			74	ug/L	74	
LCS	Q2025492	HLI	2-METHYLNAPHTHALENE	100			90	ug/L	90	
LCS	Q2025492	HLI	NAPHTHALENE	100			87.8	ug/L	87.8	
LCS	Q2025492	HLI	2-NITROANILINE (O-NITROANILINE)	100			85.5	ug/L	85.5	
LCS	Q2025492	HLI	3-NITROANILINE (M-NITROANILINE)	100			104.1	ug/L	104.1	
LCS	Q2025492	HLI	4-NITROANILINE (P-NITROANILINE)	100			90.6	ug/L	90.6	
LCS	Q2025492	HLI	NITROBENZENE	100			85.1	ug/L	85.1	
LCS	Q2025492	HLI	N-NITROSODIPHENYLAMINE	200			174	ug/L	87	
LCS	Q2025492	HLI	N-NITROSO-DI-N-PROPYLAMINE	100			80.9	ug/L	80.9	
LCS	Q2025492	HLI	PHENANTHRENE	100			91.8	ug/L	91.8	
LCS	Q2025492	HLI	2-PICOLINE (2-METHYLPYRIDINE)	100			58 6	ug/L	58.6	
LCS	Q2025492	HLI	PYRENE	100			85.9	ug/L	85.9	
LCS	Q2025492	HLI	PYRIDINE	100			40.9	ug/L	40.9	
LCS	Q2025492	HLI	1,2,4,5-TETRACHLOROBENZENE	100			86.1	ug/L	86.1	
LCS	Q2025492	HLI	1,2,4-TRICHLOROBENZENE	100			81.9	ug/L	81.9	
LCS	Q2025492	HLI	BENZOIC ACID	100			15.7	ug/L	15.7	
LCS	Q2025492	HLI	4-CHLORO-3-METHYLPHENOL (P-CHLORO-M-CRESOL)	100			84.7	ug/L	84.7	
LCS	Q2025492	HLI	2-CHLOROPHENOL	100			84.5	ug/L	84.5	
LCS	Q2025492	HLI	2,4-DICHLOROPHENOL	100			81.6	ug/L	81.6	

HERITAGE

SAB56048

SEMI-VOLATILE ORGANICS (BASE/NEUTRAL/ACID FRACTIONS) SW846-8270C **O505.3**
Prep : GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

R528715 Analyst: J MINNIEAR, II Run Date: 07-Dec-07
Analytical Reviewer: L SMITH Review Date: 11-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2026853		2,4-DICHLOROPHENOL	0 3047						6.1
CAL01	Q2026853		2,4-DIMETHYLPHENOL	0.3855						7.1
CAL01	Q2026853		4,6-DINITRO-O-CRESOL(2-METHYL-4,6-DINITROPHEN	0 1551						3.6
CAL01	Q2026853		2,4-DINITROPHENOL			LIN				0.998
CAL01	Q2026853		2-METHYLPHENOL (O-CRESOL)	1.4779						6.6
CAL01	Q2026853		4-METHYLPHENOL (P-CRESOL)	1.5034						7.8
CAL01	Q2026853		2-NITROPHENOL	0.2202						5.2
CAL01	Q2026853		4-NITROPHENOL	0.0996						6.7
CAL01	Q2026853		PENTACHLOROPHENOL	0.1297						13.5
CAL01	Q2026853		PHENOL	2.0276						6 4
CAL01	Q2026853		2,3,4,6-TETRACHLOROPHENOL	0.2689						9
CAL01	Q2026853		2,4,5-TRICHLOROPHENOL	0.3953						5.5
CAL01	Q2026853		2,4,6-TRICHLOROPHENOL	0.3774						4.2
CAL01	Q2026853		2-FLUOROPHENOL	1.4937						4.5
CAL01	Q2026853		PHENOL-D5	1.8629						5.8
CAL01	Q2026853		NITROBENZENE-D5	0.4138						4.3
CAL01	Q2026853		2-FLUOROBIPHENYL	1.3230						7.1
CAL01	Q2026853		2,4,6-TRIBROMOPHENOL	0.1176						7.2
CAL01	Q2026853		TERPHENYL-D14	1.3264						6
SAMPLE	A790958		Analysis Date/Time: 07-Dec-07 18:48							
SAMPLE	A790958		See Certificate of Analysis. Rep: 0							
SAMPLE	A790959		Analysis Date/Time: 07-Dec-07 19:26							
SAMPLE	A790959		See Certificate of Analysis. Rep: 0							
SAMPLE	A790960		Analysis Date/Time: 07-Dec-07 20:04							
SAMPLE	A790960		See Certificate of Analysis. Rep: 0							

Q2026853 Value reported for analytes calibrated by linear (LIN) or
Q2026853 quadratic (QDR) equations is r2 (Coef of Determination)

R528802 Analyst: J MINNIEAR, II Run Date: 10-Dec-07 Instrument: GC/MS SVOA
Analytical Reviewer: L SMITH Review Date: 12-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LCS	Q2025492	HLI	Analysis Date/Time: 10-Dec-07 19:48							
LCS	Q2025492	HLI	ACENAPHTHENE	100			86.3	ug/L	86.3	
LCS	Q2025492	HLI	ACENAPHTHYLENE	100			85.2	ug/L	85.2	
LCS	Q2025492	HLI	ANTHRACENE	100			91.3	ug/L	91.3	
LCS	Q2025492	HLI	BENZO(A)ANTHRACENE [(BENZO(A)ANTHRACENE]	100			91.3	ug/L	91.3	
LCS	Q2025492	HLI	BENZO(A)PYRENE	100			82.7	ug/L	82.7	
LCS	Q2025492	HLI	BENZO(B)FLUORANTHENE (3,4-BENZOFLUORANTHENE)	100			103	ug/L	103	
LCS	Q2025492	HLI	BENZO(G,H,I)PERYLENE	100			82.8	ug/L	82.8	
LCS	Q2025492	HLI	BENZO(K)FLUORANTHENE	100			72.2	ug/L	72.2	
LCS	Q2025492	HLI	BENZYL ALCOHOL	100			73.9	ug/L	73.9	
LCS	Q2025492	HLI	BENZYLBUTYLPHTHALATE (BUTYLBENZYLPHTHALATE)	100			85.9	ug/L	85.9	
LCS	Q2025492	HLI	BIS(2-CHLOROETHOXY)METHANE	100			83.9	ug/L	83.9	
LCS	Q2025492	HLI	BIS(2-CHLOROETHYL)ETHER	100			79.1	ug/L	79.1	
LCS	Q2025492	HLI	BIS(2-CHLOROISOPROPYL)ETHER	100			84.8	ug/L	84.8	

HERITAGE

SAB56048

SEMI-VOLATILE ORGANICS (BASE/NEUTRAL/ACID FRACTIONS) SW846-8270C **O505.3**
Prep : GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

R528715 Analyst: J MINNIEAR, II Run Date: 07-Dec-07
Analytical Reviewer: L SMITH Review Date: 11-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2026853		BIS(2-ETHYLHEXYL)PHTHALATE	1.0221						7.9
CAL01	Q2026853		4-BROMODIPHENYL ETHER	0.2601						6.5
CAL01	Q2026853		CARBAZOLE	0.8236						8.7
CAL01	Q2026853		4-CHLOROANILINE	0.3875						11 4
CAL01	Q2026853		2-CHLORONAPHTHALENE	1.1981						5.8
CAL01	Q2026853		4-CHLOROPHENYL-PHENYLETHER	0.6360						4.2
CAL01	Q2026853		CHRYSENE	1.2799						4
CAL01	Q2026853		DIBENZ(A,H)ANTHRACENE	0.9911						6.8
CAL01	Q2026853		DIBENZOFURAN	1.6699						4
CAL01	Q2026853		1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	1.6174						4.1
CAL01	Q2026853		1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	1.7031						3.7
CAL01	Q2026853		1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	1.7098						3.5
CAL01	Q2026853		3,3'-DICHLOROBENZIDINE	0.3243						9.7
CAL01	Q2026853		DIETHYLPHTHALATE	1.2173						4
CAL01	Q2026853		DIMETHYLPHTHALATE	1.2716						6
CAL01	Q2026853		DI-N-BUTYLPHTHALATE	1.2768						9.2
CAL01	Q2026853		2,4-DINITROTOLUENE	0.3567						4.2
CAL01	Q2026853		2,6-DINITROTOLUENE	0.3054						3.9
CAL01	Q2026853		DI-N-OCTYLPHTHALATE	2.5159						10.5
CAL01	Q2026853		FLUORANTHENE	1.0303						13
CAL01	Q2026853		FLUORENE	1 2363						4.4
CAL01	Q2026853		HEXACHLOROBENZENE	0.2720						4.9
CAL01	Q2026853		HEXACHLOROBUTADIENE	0.2024						4.4
CAL01	Q2026853		HEXACHLOROCYCLOPENTADIENE	0.3995						13.6
CAL01	Q2026853		HEXACHLOROETHANE	0.6978						3.5
CAL01	Q2026853		INDENO(1,2,3-CD)PYRENE	1.1488						7 3
CAL01	Q2026853		ISOPHORONE	0.7687						5.6
CAL01	Q2026853		2-METHYLNAPHTHALENE	0.6122						5.3
CAL01	Q2026853		NAPHTHALENE	1.1184						4.6
CAL01	Q2026853		2-NITROANILINE (O-NITROANILINE)	0.3657						3.7
CAL01	Q2026853		3-NITROANILINE (M-NITROANILINE)	0.2535						10.8
CAL01	Q2026853		4-NITROANILINE (P-NITROANILINE)	0.2174						9.4
CAL01	Q2026853		NITROBENZENE	0.4554						4.5
CAL01	Q2026853		N-NITROSODIPHENYLAMINE	0.6125						7.6
CAL01	Q2026853		N-NITROSO-DI-N-PROPYLAMINE	1.2167						8.9
CAL01	Q2026853		PHENANTHRENE	1.1227						3.7
CAL01	Q2026853		2-PICOLINE (2-METHYLPYRIDINE)	1.7198						9.8
CAL01	Q2026853		PYRENE	1.8710						5.4
CAL01	Q2026853		PYRIDINE	1.8421						3.6
CAL01	Q2026853		1,2,4,5-TETRACHLOROBENZENE	0.5654						8.3
CAL01	Q2026853		TOLUENEDIAMINE	0.0082						13.8
CAL01	Q2026853		1,2,4-TRICHLOROBENZENE	0.3502						4
CAL01	Q2026853		BENZOIC ACID			LIN				0.990
CAL01	Q2026853		4-CHLORO-3-METHYLPHENOL (P-CHLORO-M-CRESOL)	0 3132						1.9
CAL01	Q2026853		2-CHLOROPHENOL	1.5382						4.3

HERITAGE

SAB56048

SEMI-VOLATILE ORGANICS (BASE/NEUTRAL/ACID FRACTIONS) SW846-8270C **O505.3**
Prep : GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

R528713 Analyst: J MINNIEAR, II Run Date: 07-Dec-07
Analytical Reviewer: L SMITH Review Date: 11-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025491	HLI	PYRENE			BDL	2.6	ug/L		
BLA02	Q2025491	HLI	PYRIDINE			BDL	2.5	ug/L		
BLA02	Q2025491	HLI	1,2,4,5-TETRACHLOROBENZENE			BDL	1.0	ug/L		
BLA02	Q2025491	HLI	1,2,4-TRICHLOROBENZENE			BDL	1.1	ug/L		
BLA02	Q2025491	HLI	BENZOIC ACID			BDL	8.9	ug/L		
BLA02	Q2025491	HLI	4-CHLORO-3-METHYLPHENOL (P-CHLORO-M-CRESOL)			BDL	2.1	ug/L		
BLA02	Q2025491	HLI	2-CHLOROPHENOL			BDL	1.6	ug/L		
BLA02	Q2025491	HLI	2,4-DICHLOROPHENOL			BDL	2.0	ug/L		
BLA02	Q2025491	HLI	2,4-DIMETHYLPHENOL			BDL	1.6	ug/L		
BLA02	Q2025491	HLI	4,6-DINITRO-O-CRESOL(2-METHYL-4,6-DINITROPHEN			BDL	6.6	ug/L		
BLA02	Q2025491	HLI	2,4-DINITROPHENOL			BDL	8.1	ug/L		
BLA02	Q2025491	HLI	2-METHYLPHENOL (O-CRESOL)			BDL	1.8	ug/L		
BLA02	Q2025491	HLI	4-METHYLPHENOL (P-CRESOL)			BDL	1.8	ug/L		
BLA02	Q2025491	HLI	2-NITROPHENOL			BDL	1.7	ug/L		
BLA02	Q2025491	HLI	4-NITROPHENOL			BDL	14	ug/L		
BLA02	Q2025491	HLI	PENTACHLOROPHENOL			BDL	6.8	ug/L		
BLA02	Q2025491	HLI	PHENOL			BDL	1.3	ug/L		
BLA02	Q2025491	HLI	2,3,4,6-TETRACHLOROPHENOL			BDL	2.3	ug/L		
BLA02	Q2025491	HLI	2,4,5-TRICHLOROPHENOL			BDL	1.8	ug/L		
BLA02	Q2025491	HLI	2,4,6-TRICHLOROPHENOL			BDL	1.6	ug/L		
BLA02	Q2025491	HLI	2-FLUOROPHENOL						55	
BLA02	Q2025491	HLI	PHENOL-D5						33	
BLA02	Q2025491	HLI	NITROBENZENE-D5						103	
BLA02	Q2025491	HLI	2-FLUOROBIPHENYL						98	
BLA02	Q2025491	HLI	2,4,6-TRIBROMOPHENOL						91	
BLA02	Q2025491	HLI	TERPHENYL-D14						45	

R528715 Analyst: J MINNIEAR, II Run Date: 07-Dec-07 Instrument: GC/MS SVOA
Analytical Reviewer: L SMITH Review Date: 11-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2026853		Analysis Date/Time: 07-Dec-07 13:04							
CAL01	Q2026853		ACENAPHTHENE	1.1402						5
CAL01	Q2026853		ACENAPHTHYLENE	1.8775						5.7
CAL01	Q2026853		ANTHRACENE	1.1160						7.3
CAL01	Q2026853		BENZO(A)ANTHRACENE [(BENZO(A)ANTHRACENE]	1.2281						4.1
CAL01	Q2026853		BENZO(A)PYRENE	1.3838						3.8
CAL01	Q2026853		BENZO(B)FLUORANTHENE (3,4-BENZOFLUORANTHENE)	1.5773						6
CAL01	Q2026853		BENZO(G,H,I)PERYLENE	0.9400						6.6
CAL01	Q2026853		BENZO(K)FLUORANTHENE	1.5417						4.3
CAL01	Q2026853		BENZYL ALCOHOL	1.0506						8.3
CAL01	Q2026853		BENZYLBUTYLPHTHALATE (BUTYLBENZYLPHTHALATE)	0.7146						5.6
CAL01	Q2026853		BIS(2-CHLOROETHOXY)METHANE	0.5034						6.3
CAL01	Q2026853		BIS(2-CHLOROETHYL)ETHER	1.8042						4.4
CAL01	Q2026853		BIS(2-CHLOROISOPROPYL)ETHER	2.4076						5.4

HERITAGE

SAB56048

SEMI-VOLATILE ORGANICS (BASE/NEUTRAL/ACID FRACTIONS) SW846-8270C **O505.3**
Prep : GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

R528713 Analyst: J MINNIEAR, II Run Date: 07-Dec-07
Analytical Reviewer: L SMITH Review Date: 11-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
			BENZOFLUORANTHENE)							
BLA02	Q2025491	HLI	BENZO(G,H,I)PERYLENE			BDL	2.6	ug/L		
BLA02	Q2025491	HLI	BENZO(K)FLUORANTHENE			BDL	2.6	ug/L		
BLA02	Q2025491	HLI	BENZYL ALCOHOL			BDL	1.7	ug/L		
BLA02	Q2025491	HLI	BENZYLBUTYLPHTHALATE (BUTYLBENZYLPHTHALATE)			BDL	1.9	ug/L		
BLA02	Q2025491	HLI	BIS(2-CHLOROETHOXY)METHANE			BDL	1.9	ug/L		
BLA02	Q2025491	HLI	BIS(2-CHLOROETHYL)ETHER			BDL	1.3	ug/L		
BLA02	Q2025491	HLI	BIS(2-CHLOROISOPROPYL)ETHER			BDL	1.6	ug/L		
BLA02	Q2025491	HLI	BIS(2-ETHYLHEXYL)PHTHALATE			BDL	2.5	ug/L		
BLA02	Q2025491	HLI	4-BROMODIPHENYL ETHER			BDL	1.5	ug/L		
BLA02	Q2025491	HLI	CARBAZOLE			BDL	1.2	ug/L		
BLA02	Q2025491	HLI	4-CHLOROANILINE			BDL	2.0	ug/L		
BLA02	Q2025491	HLI	2-CHLORONAPHTHALENE			BDL	1.5	ug/L		
BLA02	Q2025491	HLI	4-CHLOROPHENYL-PHENYLETHER			BDL	2.0	ug/L		
BLA02	Q2025491	HLI	CHRYSENE			BDL	2.0	ug/L		
BLA02	Q2025491	HLI	DIBENZ(A,H)ANTHRACENE			BDL	2.3	ug/L		
BLA02	Q2025491	HLI	DIBENZOFURAN			BDL	1.9	ug/L		
BLA02	Q2025491	HLI	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)			BDL	1.1	ug/L		
BLA02	Q2025491	HLI	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)			BDL	1.1	ug/L		
BLA02	Q2025491	HLI	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)			BDL	1.2	ug/L		
BLA02	Q2025491	HLI	3,3'-DICHLOROBENZIDINE			BDL	3.6	ug/L		
BLA02	Q2025491	HLI	DIETHYLPHTHALATE			BDL	2.5	ug/L		
BLA02	Q2025491	HLI	DIMETHYLPHTHALATE			BDL	2.0	ug/L		
BLA02	Q2025491	HLI	DI-N-BUTYLPHTHALATE			BDL	1.9	ug/L		
BLA02	Q2025491	HLI	2,4-DINITROTOLUENE			BDL	2.3	ug/L		
BLA02	Q2025491	HLI	2,6-DINITROTOLUENE			BDL	2.2	ug/L		
BLA02	Q2025491	HLI	DI-N-OCTYLPHTHALATE			BDL	4.1	ug/L		
BLA02	Q2025491	HLI	FLUORANTHENE			BDL	1 3	ug/L		
BLA02	Q2025491	HLI	FLUORENE			BDL	2.2	ug/L		
BLA02	Q2025491	HLI	HEXACHLOROBENZENE			BDL	1.6	ug/L		
BLA02	Q2025491	HLI	HEXACHLOROBUTADIENE			BDL	1.3	ug/L		
BLA02	Q2025491	HLI	HEXACHLOROCYCLOPENTADIENE			BDL	0.90	ug/L		
BLA02	Q2025491	HLI	HEXACHLOROETHANE			BDL	1.1	ug/L		
BLA02	Q2025491	HLI	INDENO(1,2,3-CD)PYRENE			BDL	2.5	ug/L		
BLA02	Q2025491	HLI	ISOPHORONE			BDL	1.8	ug/L		
BLA02	Q2025491	HLI	2-METHYLNAPHTHALENE			BDL	1.6	ug/L		
BLA02	Q2025491	HLI	NAPHTHALENE			BDL	1.3	ug/L		
BLA02	Q2025491	HLI	2-NITROANILINE (O-NITROANILINE)			BDL	2 3	ug/L		
BLA02	Q2025491	HLI	3-NITROANILINE (M-NITROANILINE)			BDL	3.2	ug/L		
BLA02	Q2025491	HLI	4-NITROANILINE (P-NITROANILINE)			BDL	2.5	ug/L		
BLA02	Q2025491	HLI	NITROBENZENE			BDL	1.5	ug/L		
BLA02	Q2025491	HLI	N-NITROSODIPHENYLAMINE			BDL	3.1	ug/L		
BLA02	Q2025491	HLI	N-NITROSO-DI-N-PROPYLAMINE			BDL	2.0	ug/L		
BLA02	Q2025491	HLI	PHENANTHRENE			BDL	2.0	ug/L		
BLA02	Q2025491	HLI	2-PICOLINE (2-METHYLPYRIDINE)			BDL	2.2	ug/L		

HERITAGE

SAB56048

SEMI-VOLATILE ORGANICS (BASE/NEUTRAL/ACID FRACTIONS) SW846-8270C **O505.3**
Prep : GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

R527716 Analyst: C WILLHITE Run Date: 18-Nov-07
Analytical Reviewer: L SMITH Review Date: 20-Nov-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
DPS02	Q2018900	A789060	N-NITROSO-DI-N-PROPYLAMINE	0	100		87.7	ug/L	87.7	7.8
DPS02	Q2018900	A789060	PHENANTHRENE	0	100		94.2	ug/L	94.2	2.8
DPS02	Q2018900	A789060	2-PICOLINE (2-METHYLPYRIDINE)	0	100		67.7	ug/L	67 7	2.2
DPS02	Q2018900	A789060	PYRENE	0	100		95.5	ug/L	95.5	2.1
DPS02	Q2018900	A789060	PYRIDINE	0	100		49 4	ug/L	49.4	5 5
DPS02	Q2018900	A789060	1,2,4,5-TETRACHLOROBENZENE	0	100		78.7	ug/L	78.7	2.8
DPS02	Q2018900	A789060	1,2,4-TRICHLOROBENZENE	0	100		87.4	ug/L	87.4	0.7
DPS02	Q2018900	A789060	BENZOIC ACID	0	100		32.9	ug/L	32.9	9 2
DPS02	Q2018900	A789060	4-CHLORO-3-METHYLPHENOL (P-CHLORO-M-CRESOL)	0	100		88.2	ug/L	88.2	6.7
DPS02	Q2018900	A789060	2-CHLOROPHENOL	0	100		84.6	ug/L	84.6	5
DPS02	Q2018900	A789060	2,4-DICHLOROPHENOL	0	100		87.6	ug/L	87.6	4.1
DPS02	Q2018900	A789060	2,4-DIMETHYLPHENOL	0	100		78.5	ug/L	78.5	11.6
DPS02	Q2018900	A789060	4,6-DINITRO-O-CRESOL(2-METHYL-4,6-DINITROPHEN	0	100		102	ug/L	101.8	8.9
DPS02	Q2018900	A789060	2,4-DINITROPHENOL	0	100		90.5	ug/L	90.5	5.3
DPS02	Q2018900	A789060	2-METHYLPHENOL (O-CRESOL)	0	100		73.1	ug/L	73.1	8.1
DPS02	Q2018900	A789060	4-METHYLPHENOL (P-CRESOL)	0	100		65.2	ug/L	65.2	9 5
DPS02	Q2018900	A789060	2-NITROPHENOL	0	100		91.1	ug/L	91.1	2.6
DPS02	Q2018900	A789060	4-NITROPHENOL	0	100		23.9	ug/L	23.9	1.7
DPS02	Q2018900	A789060	PENTACHLOROPHENOL	0	100		100	ug/L	100.4	4.5
DPS02	Q2018900	A789060	PHENOL	0	100		35.4	ug/L	35.4	6.4
DPS02	Q2018900	A789060	2,3,4,6-TETRACHLOROPHENOL	0	100		91.7	ug/L	91.7	4.1
DPS02	Q2018900	A789060	2,4,5-TRICHLOROPHENOL	0	100		91.2	ug/L	91.2	4.9
DPS02	Q2018900	A789060	2,4,6-TRICHLOROPHENOL	0	100		95.3	ug/L	95.3	4.6

R528543 Analyst: J MINNIEAR, II Run Date: 06-Dec-07 Instrument: PREP
Prep Reviewer: L SMITH Review Date: 06-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025491	HLI	Analytical Run: R528713							
LCS	Q2025492	HLI	Analytical Run: R528802							
SAMPLE	A790958	Rep: 0	Analytical Run: R528715							
SAMPLE	A790959	Rep: 0	Analytical Run: R528715							
SAMPLE	A790960	Rep: 0	Analytical Run: R528715							
SPI02	Q2018899	A789060	Analytical Run: R527716							
DPS02	Q2018900	A789060	Analytical Run: R527716							

R528713 Analyst: J MINNIEAR, II Run Date: 07-Dec-07 Instrument: GC/MS SVOA
Analytical Reviewer: L SMITH Review Date: 11-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025491	HLI	Analysis Date/Time: 07-Dec-07 13:52							
BLA02	Q2025491	HLI	ACENAPHTHENE			BDL	1.7	ug/L		
BLA02	Q2025491	HLI	ACENAPHTHYLENE			BDL	1.7	ug/L		
BLA02	Q2025491	HLI	ANTHRACENE			BDL	1.8	ug/L		
BLA02	Q2025491	HLI	BENZO(A)ANTHRACENE [(BENZO(A)ANTHRACENE]			BDL	2.0	ug/L		
BLA02	Q2025491	HLI	BENZO(A)PYRENE			BDL	2.2	ug/L		
BLA02	Q2025491	HLI	BENZO(B)FLUORANTHENE (3,4-			BDL	2.7	ug/L		

HERITAGE

SAB56048

SEMI-VOLATILE ORGANICS (BASE/NEUTRAL/ACID FRACTIONS) SW846-8270C **O505.3**
Prep : GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

R527716 Analyst: C WILLHITE Run Date: 18-Nov-07
Analytical Reviewer: L SMITH Review Date: 20-Nov-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
DPS02	Q2018900	A789060	BENZO(A)ANTHRACENE [(BENZO(A)ANTHRACENE]	0	100		105	ug/L	104.7	2 7
DPS02	Q2018900	A789060	BENZO(A)PYRENE	0	100		88.7	ug/L	88.7	2.1
DPS02	Q2018900	A789060	BENZO(B)FLUORANTHENE (3,4-BENZOFLUORANTHENE)	0	100		93.4	ug/L	93.4	6.3
DPS02	Q2018900	A789060	BENZO(G,H,I)PERYLENE	0	100		90	ug/L	90	7.8
DPS02	Q2018900	A789060	BENZO(K)FLUORANTHENE	0	100		91.4	ug/L	91 4	2
DPS02	Q2018900	A789060	BENZYL ALCOHOL	0	100		71.4	ug/L	71.4	5.9
DPS02	Q2018900	A789060	BENZYLBUTYLPHTHALATE (BUTYLBENZYLPHTHALATE)	0	100		89.7	ug/L	89.7	2.9
DPS02	Q2018900	A789060	BIS(2-CHLOROETHOXY)METHANE	0	100		86.7	ug/L	86.7	2.1
DPS02	Q2018900	A789060	BIS(2-CHLOROETHYL)ETHER	0	100		83.4	ug/L	83.4	3
DPS02	Q2018900	A789060	BIS(2-CHLOROISOPROPYL)ETHER	0	100		85.2	ug/L	85 2	2.3
DPS02	Q2018900	A789060	BIS(2-ETHYLHEXYL)PHTHALATE	0	100		89.4	ug/L	89.4	2 8
DPS02	Q2018900	A789060	4-BROMODIPHENYL ETHER	0	100		95.8	ug/L	95.8	5 6
DPS02	Q2018900	A789060	CARBAZOLE	0	100		92.7	ug/L	92.7	0.8
DPS02	Q2018900	A789060	4-CHLOROANILINE	0	100		103	ug/L	103.4	3.2
DPS02	Q2018900	A789060	2-CHLORONAPHTHALENE	0	100		90.6	ug/L	90.6	3.1
DPS02	Q2018900	A789060	4-CHLOROPHENYL-PHENYLETHER	0	100		89.1	ug/L	89.1	3.1
DPS02	Q2018900	A789060	CHRYSENE	0	100		95.3	ug/L	95.3	5.2
DPS02	Q2018900	A789060	DIBENZ(A,H)ANTHRACENE	0	100		92.9	ug/L	92.9	5.1
DPS02	Q2018900	A789060	DIBENZOFURAN	0	100		90.3	ug/L	90.3	2.9
DPS02	Q2018900	A789060	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	0	100		84.7	ug/L	84.7	0.1
DPS02	Q2018900	A789060	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	0	100		84.6	ug/L	84 6	1.4
DPS02	Q2018900	A789060	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	0	100		85	ug/L	85	0.2
DPS02	Q2018900	A789060	3,3'-DICHLOROBENZIDINE	0	100		29.2	ug/L	29.2	7.8
DPS02	Q2018900	A789060	DIETHYLPHTHALATE	0	100		88.5	ug/L	88.5	2.9
DPS02	Q2018900	A789060	DIMETHYLPHTHALATE	0	100		86.8	ug/L	86.8	0.9
DPS02	Q2018900	A789060	DI-N-BUTYLPHTHALATE	0	100		82.6	ug/L	82.6	0.5
DPS02	Q2018900	A789060	2,4-DINITROTOLUENE	0	100		90.8	ug/L	90 8	0.4
DPS02	Q2018900	A789060	2,6-DINITROTOLUENE	0	100		91.9	ug/L	91.9	3.1
DPS02	Q2018900	A789060	DI-N-OCTYLPHTHALATE	0	100		81.7	ug/L	81.7	4.1
DPS02	Q2018900	A789060	FLUORANTHENE	0	100		81.1	ug/L	81.1	2.6
DPS02	Q2018900	A789060	FLUORENE	0	100		90.5	ug/L	90.5	2.6
DPS02	Q2018900	A789060	HEXACHLOROBENZENE	0	100		99.4	ug/L	99.4	6.3
DPS02	Q2018900	A789060	HEXACHLOROBUTADIENE	0	100		87.3	ug/L	87.3	2.5
DPS02	Q2018900	A789060	HEXACHLOROCYCLOPENTADIENE	0	100		87.2	ug/L	87.2	4
DPS02	Q2018900	A789060	HEXACHLOROETHANE	0	100		85.3	ug/L	85 3	0.4
DPS02	Q2018900	A789060	INDENO(1,2,3-CD)PYRENE	0	100		93.6	ug/L	93.6	6.4
DPS02	Q2018900	A789060	ISOPHORONE	0	100		87.7	ug/L	87.7	5 7
DPS02	Q2018900	A789060	2-METHYLNAPHTHALENE	0	100		91.5	ug/L	91.5	6.4
DPS02	Q2018900	A789060	NAPHTHALENE	0	100		89.2	ug/L	89.2	1
DPS02	Q2018900	A789060	2-NITROANILINE (O-NITROANILINE)	0	100		91.5	ug/L	91.5	2
DPS02	Q2018900	A789060	3-NITROANILINE (M-NITROANILINE)	0	100		111	ug/L	110.8	0.2
DPS02	Q2018900	A789060	4-NITROANILINE (P-NITROANILINE)	0	100		93.6	ug/L	93.6	1.4
DPS02	Q2018900	A789060	NITROBENZENE	0	100		93.2	ug/L	93.2	0.2
DPS02	Q2018900	A789060	N-NITROSODIPHENYLAMINE	0	100		95.4	ug/L	95.4	4

HERITAGE

SAB56048

SEMI-VOLATILE ORGANICS (BASE/NEUTRAL/ACID FRACTIONS) SW846-8270C **O505.3**
Prep : GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

R527716 Analyst: C WILLHITE Run Date: 18-Nov-07
Analytical Reviewer: L SMITH Review Date: 20-Nov-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SPI02	Q2018899	A789060	DI-N-BUTYLPHTHALATE	0	100		83	ug/L	83	
SPI02	Q2018899	A789060	2,4-DINITROTOLUENE	0	100		90.4	ug/L	90.4	
SPI02	Q2018899	A789060	2,6-DINITROTOLUENE	0	100		89.1	ug/L	89.1	
SPI02	Q2018899	A789060	DI-N-OCTYLPHTHALATE	0	100		78.4	ug/L	78.4	
SPI02	Q2018899	A789060	FLUORANTHENE	0	100		83.2	ug/L	83.2	
SPI02	Q2018899	A789060	FLUORENE	0	100		88.2	ug/L	88.2	
SPI02	Q2018899	A789060	HEXACHLOROBENZENE	0	100		93.3	ug/L	93.3	
SPI02	Q2018899	A789060	HEXACHLOROBUTADIENE	0	100		89.5	ug/L	89.5	
SPI02	Q2018899	A789060	HEXACHLOROCYCLOPENTADIENE	0	100		83.8	ug/L	83.8	
SPI02	Q2018899	A789060	HEXACHLOROETHANE	0	100		85.6	ug/L	85.6	
SPI02	Q2018899	A789060	INDENO(1,2,3-CD)PYRENE	0	100		99.8	ug/L	99.8	
SPI02	Q2018899	A789060	ISOPHORONE	0	100		82.8	ug/L	82.8	
SPI02	Q2018899	A789060	2-METHYLNAPHTHALENE	0	100		85.8	ug/L	85.8	
SPI02	Q2018899	A789060	NAPHTHALENE	0	100		88.3	ug/L	88.3	
SPI02	Q2018899	A789060	2-NITROANILINE (O-NITROANILINE)	0	100		89.7	ug/L	89.7	
SPI02	Q2018899	A789060	3-NITROANILINE (M-NITROANILINE)	0	100		111	ug/L	111	
SPI02	Q2018899	A789060	4-NITROANILINE (P-NITROANILINE)	0	100		94.9	ug/L	94.9	
SPI02	Q2018899	A789060	NITROBENZENE	0	100		93	ug/L	93	
SPI02	Q2018899	A789060	N-NITROSODIPHENYLAMINE	0	100		91.7	ug/L	91.7	
SPI02	Q2018899	A789060	N-NITROSO-DI-N-PROPYLAMINE	0	100		81.1	ug/L	81.1	
SPI02	Q2018899	A789060	PHENANTHRENE	0	100		91.6	ug/L	91.6	
SPI02	Q2018899	A789060	2-PICOLINE (2-METHYLPYRIDINE)	0	100		66.2	ug/L	66.2	
SPI02	Q2018899	A789060	PYRENE	0	100		93.5	ug/L	93.5	
SPI02	Q2018899	A789060	PYRIDINE	0	100		52.2	ug/L	52.2	
SPI02	Q2018899	A789060	1,2,4,5-TETRACHLOROBENZENE	0	100		76.5	ug/L	76.5	
SPI02	Q2018899	A789060	1,2,4-TRICHLOROBENZENE	0	100		88	ug/L	88	
SPI02	Q2018899	A789060	BENZOIC ACID	0	100		30	ug/L	30	
SPI02	Q2018899	A789060	4-CHLORO-3-METHYLPHENOL (P-CHLORO-M-CRESOL)	0	100		82.5	ug/L	82.5	
SPI02	Q2018899	A789060	2-CHLOROPHENOL	0	100		80.5	ug/L	80.5	
SPI02	Q2018899	A789060	2,4-DICHLOROPHENOL	0	100		84.1	ug/L	84.1	
SPI02	Q2018899	A789060	2,4-DIMETHYLPHENOL	0	100		69.9	ug/L	69.9	
SPI02	Q2018899	A789060	4,6-DINITRO-O-CRESOL(2-METHYL-4,6-DINITROPHEN	0	100		93.1	ug/L	93.1	
SPI02	Q2018899	A789060	2,4-DINITROPHENOL	0	100		85.8	ug/L	85.8	
SPI02	Q2018899	A789060	2-METHYLPHENOL (O-CRESOL)	0	100		67.4	ug/L	67.4	
SPI02	Q2018899	A789060	4-METHYLPHENOL (P-CRESOL)	0	100		59.3	ug/L	59.3	
SPI02	Q2018899	A789060	2-NITROPHENOL	0	100		88.8	ug/L	88.8	
SPI02	Q2018899	A789060	4-NITROPHENOL	0	100		23.5	ug/L	23.5	
SPI02	Q2018899	A789060	PENTACHLOROPHENOL	0	100		96	ug/L	96	
SPI02	Q2018899	A789060	PHENOL	0	100		33.2	ug/L	33.2	
SPI02	Q2018899	A789060	2,3,4,6-TETRACHLOROPHENOL	0	100		88	ug/L	88	
SPI02	Q2018899	A789060	2,4,5-TRICHLOROPHENOL	0	100		86.8	ug/L	86.8	
SPI02	Q2018899	A789060	2,4,6-TRICHLOROPHENOL	0	100		91	ug/L	91	
DPS02	Q2018900	A789060	Analysis Date/Time: 18-Nov-07 21:24							
DPS02	Q2018900	A789060	ACENAPHTHENE	0	100		91.4	ug/L	91.4	2.2
DPS02	Q2018900	A789060	ACENAPHTHYLENE	0	100		90.8	ug/L	90.8	1.7
DPS02	Q2018900	A789060	ANTHRACENE	0	100		94.1	ug/L	94.1	2.4

HERITAGE

SAB56048

ZINC ICP SW846-6010B **M139.3**
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528708 Analyst: J KRAMER Run Date: 10-Dec-07
Analytical Reviewer: S ENDERSEN Review Date: 11-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026757	INORGANIC	ZINC	5.00			4.72	mg/L	94.4	
BLA01	Q2026736	NA	ZINC			<	0.00100	mg/L		
LCS	Q2025624	SPEX	ZINC	0.5			0.471	mg/L	94.2	
SER01	Q2026779	A790391	ZINC	0.0413		CNA	0 0442	mg/L		
CDL01	Q2027010	INORGANIC	ZINC	0.0200			0.0174	mg/L	87.0	
ICS-AB	Q2027002	PERKIN ELM	ZINC	1.00			0.792	mg/L	79.2	

SEMI-VOLATILE ORGANICS (BASE/NEUTRAL/ACID FRACTIONS) SW846-8270C **O505.3**
Prep : GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

R527716 Analyst: C WILLHITE Run Date: 18-Nov-07 Instrument: GC/MS SVOA
Analytical Reviewer: L SMITH Review Date: 20-Nov-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SPI02	Q2018899	A789060	Analysis Date/Time: 18-Nov-07 20:45							
SPI02	Q2018899	A789060	ACENAPHTHENE	0	100		89.4	ug/L	89.4	
SPI02	Q2018899	A789060	ACENAPHTHYLENE	0	100		89.3	ug/L	89.3	
SPI02	Q2018899	A789060	ANTHRACENE	0	100		91.9	ug/L	91.9	
SPI02	Q2018899	A789060	BENZO(A)ANTHRACENE [(BENZO(A)ANTHRACENE]	0	100		102	ug/L	102	
SPI02	Q2018899	A789060	BENZO(A)PYRENE	0	100		86.9	ug/L	86.9	
SPI02	Q2018899	A789060	BENZO(B)FLUORANTHENE (3,4-BENZOFLUORANTHENE)	0	100		87.7	ug/L	87.7	
SPI02	Q2018899	A789060	BENZO(G,H,I)PERYLENE	0	100		97.3	ug/L	97.3	
SPI02	Q2018899	A789060	BENZO(K)FLUORANTHENE	0	100		93.2	ug/L	93.2	
SPI02	Q2018899	A789060	BENZYL ALCOHOL	0	100		67.3	ug/L	67.3	
SPI02	Q2018899	A789060	BENZYLBUTYLPHTHALATE (BUTYLBENZYLPHTHALATE)	0	100		87.1	ug/L	87.1	
SPI02	Q2018899	A789060	BIS(2-CHLOROETHOXY)METHANE	0	100		84.9	ug/L	84.9	
SPI02	Q2018899	A789060	BIS(2-CHLOROETHYL)ETHER	0	100		80 9	ug/L	80.9	
SPI02	Q2018899	A789060	BIS(2-CHLOROISOPROPYL)ETHER	0	100		83.3	ug/L	83.3	
SPI02	Q2018899	A789060	BIS(2-ETHYLHEXYL)PHTHALATE	0	100		86.9	ug/L	86.9	
SPI02	Q2018899	A789060	4-BROMODIPHENYL ETHER	0	100		90.6	ug/L	90.6	
SPI02	Q2018899	A789060	CARBAZOLE	0	100		93.4	ug/L	93.4	
SPI02	Q2018899	A789060	4-CHLOROANILINE	0	100		100	ug/L	100	
SPI02	Q2018899	A789060	2-CHLORONAPHTHALENE	0	100		87.8	ug/L	87.8	
SPI02	Q2018899	A789060	4-CHLOROPHENYL-PHENYLETHER	0	100		86.4	ug/L	86.4	
SPI02	Q2018899	A789060	CHRYSENE	0	100		90.5	ug/L	90.5	
SPI02	Q2018899	A789060	DIBENZ(A,H)ANTHRACENE	0	100		97.8	ug/L	97.8	
SPI02	Q2018899	A789060	DIBENZOFURAN	0	100		87.7	ug/L	87.7	
SPI02	Q2018899	A789060	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	0	100		84.6	ug/L	84.6	
SPI02	Q2018899	A789060	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	0	100		85.8	ug/L	85.8	
SPI02	Q2018899	A789060	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	0	100		85.2	ug/L	85 2	
SPI02	Q2018899	A789060	3,3'-DICHLOROBENZIDINE	0	100		27	ug/L	27	
SPI02	Q2018899	A789060	DIETHYLPHTHALATE	0	100		86	ug/L	86	
SPI02	Q2018899	A789060	DIMETHYLPHTHALATE	0	100		86	ug/L	86	

HERITAGE

SAB56048

ZINC ICP SW846-6010B **M139.3**

Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528615 Analyst: J KRAMER Run Date: 08-Dec-07
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
DPS02	Q2025918	A791088	Analytical Run: R528708							
SAMPLE	A790959	Rep: 0	Analytical Run: R528708							
SAMPLE	A790960	Rep: 0	Analytical Run: R528708							

R528645 Analyst: J KRAMER Run Date: 07-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	ZINC			<	0.00800	mg/L		
DUP02	Q2025625	A790897	ZINC	0		BDL		mg/L		
SPI02	Q2025626	A790897	ZINC	0	0.500		0.413	mg/L	82.6	

R528650 Analyst: J KRAMER Run Date: 08-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026127	PERKIN ELM	ZINC	1			1.01	mg/L	101.0	
CDL01	Q2026120	PERKIN ELM	ZINC	0.040			0.0432	mg/L	108.0	
ICS-AB	Q2026142	PERKIN ELM	ZINC	1.00			0.944	mg/L	94.4	
SER01	Q2026173	A791512	ZINC	0		BDL		mg/L		
CCV	Q2026151	INORGANIC	ZINC	5.00			4.80	mg/L	96.0	
BLA01	Q2026131	NA	ZINC			<	0.00800	mg/L		
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
CCV	Q2026152	INORGANIC	ZINC	5.00			4.79	mg/L	95.8	
BLA01	Q2026132	NA	ZINC			<	0.00800	mg/L		
SER01	Q2026169	A790885	ZINC	0		BDL		mg/L		
CDL01	Q2026167	INORGANIC	ZINC	0.0200			0.0280	mg/L	140.0	
ICS-AB	Q2026143	PERKIN ELM	ZINC	1.00			0.928	mg/L	92.8	

Q2026173 There was possible matrix interference for K
Q2026173 as indicated by the serial dilution results.

R528708 Analyst: J KRAMER Run Date: 10-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 11-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026725	PERKIN ELM	ZINC	1			1.02	mg/L	102.0	
BLA02	Q2025915	NA	ZINC			<	0.00800	mg/L		
LCS	Q2025916	SPEX	ZINC	0.5			0.483	mg/L	96.6	
SER01	Q2026782	A791088	ZINC	0		BDL		mg/L		
SPI02	Q2025917	A791088	ZINC	0	0.500		0.480	mg/L	96.0	
DPS02	Q2025918	A791088	ZINC	0	0.500		0.461	mg/L	92.2	4.0
CDL01	Q2026770	PERKIN ELM	ZINC	0.040			0.0395	mg/L	98.8	
ICS-AB	Q2026746	PERKIN ELM	ZINC	1.00			0.922	mg/L	92.2	
CCV	Q2026756	INORGANIC	ZINC	5.00			4.75	mg/L	95.0	
BLA01	Q2026735	NA	ZINC			<	0.00100	mg/L		

HERITAGE

SAB56048

CHROMIUM ICP SW846-6010B — M110.3
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528645 Analyst: J KRAMER — Run Date: 07-Dec-07
Analytical Reviewer: S ENDERSEN — Review Date: 10-Dec-07 — Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
Q2026088	as indicated by the serial dilution results.									

R528659 Analyst: J KRAMER — Run Date: 09-Dec-07 — Instrument: ICP
Analytical Reviewer: S ENDERSEN — Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	CHROMIUM	1			0.983	mg/L	98.3	
BLA02	Q2025915	NA	CHROMIUM				0.00141	mg/L		
LCS	Q2025916	SPEX	CHROMIUM	0.2			0.191	mg/L	95.5	
SPI02	Q2025917	A791088	CHROMIUM	0.00266	0.200		0.190	mg/L	93.7	
DPS02	Q2025918	A791088	CHROMIUM	0.00266	0.200		0.185	mg/L	91.2	2.7
CDL01	Q2026315	PERKIN ELM	CHROMIUM	0.020			0.0205	mg/L	102.5	
ICS-AB	Q2026299	PERKIN ELM	CHROMIUM	0.500			0.478	mg/L	95.6	
SER01	Q2026328	A791512	CHROMIUM	0.00364		CNA	0.00653	mg/L		
CCV	Q2026309	INORGANIC	CHROMIUM	5.00			4.76	mg/L	95.2	
BLA01	Q2026294	NA	CHROMIUM			<	0.000800	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026310	INORGANIC	CHROMIUM	5.00			4.88	mg/L	97.6	
BLA01	Q2026295	NA	CHROMIUM			<	0.000800	mg/L		
BLA02	Q2025637	NA	CHROMIUM			<	0.000800	mg/L		
LCS	Q2025638	INORGANIC	CHROMIUM	0.2			0.199	mg/L	99.5	
SER01	Q2026326	A790897	CHROMIUM	0		CNA	0.00318	mg/L		
DUP02	Q2025639	A790897	CHROMIUM	0		BDL		mg/L		
SPI02	Q2025640	A790897	CHROMIUM	0	0.2		0.192	mg/L	96.0	
CDL01	Q2026319	INORGANIC	CHROMIUM	0.0100			0.0104	mg/L	104.0	
ICS-AB	Q2026300	PERKIN ELM	CHROMIUM	0.500			0.475	mg/L	95.0	

ZINC ICP SW846-6010B — M139.3
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Analyst: P MATAKA — Run Date: 07-Dec-07 — Instrument: PREP
Prep Reviewer: S ENDERSEN — Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528708							
DUP02	Q2025625	A790897	Analytical Run: R528645							
SPI02	Q2025626	A790897	Analytical Run: R528645							
SAMPLE	A790958	Rep: 0	Analytical Run: R528650							

R528615 Analyst: J KRAMER — Run Date: 08-Dec-07 — Instrument: PREP
Prep Reviewer: S ENDERSEN — Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528708							
LCS	Q2025916	SPEX	Analytical Run: R528708							
SPI02	Q2025917	A791088	Analytical Run: R528708							

HERITAGE

SAB56048

HEXAVALENT CHROMIUM SW846-7196A — M110.6

R528528 Analyst: S BOXUM — Run Date: 05-Dec-07
Analytical Reviewer: E SOTKIEWICZ — Review Date: 05-Dec-07 — Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2025400		HEXAVALENT CHROMIUM			BDL	0.01	mg/L		
DUP01	Q2025403	A791148	HEXAVALENT CHROMIUM	0		BDL		mg/L		

CHROMIUM ICP SW846-6010B — M110.3
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Analyst: P MATAKA — Run Date: 07-Dec-07 — Instrument: PREP
Prep Reviewer: S ENDERSEN — Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528645							
SAMPLE	A790958	Rep: 0	Analytical Run: R528645							
BLA02	Q2025637	NA	Analytical Run: R528659							
LCS	Q2025638	INORGANIC	Analytical Run: R528659							
DUP02	Q2025639	A790897	Analytical Run: R528659							
SPI02	Q2025640	A790897	Analytical Run: R528659							

R528615 Analyst: J KRAMER — Run Date: 08-Dec-07 — Instrument: PREP
Prep Reviewer: S ENDERSEN — Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run: R528659							

R528645 Analyst: J KRAMER — Run Date: 07-Dec-07 — Instrument: ICP
Analytical Reviewer: S ENDERSEN — Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026093	PERKIN ELM	CHROMIUM	1			1.07	mg/L	107.0	
CDL01	Q2026083	INORGANIC	CHROMIUM	10			9.99	mg/L	99 9	
ICS-AB	Q2026060	PERKIN ELM	CHROMIUM	0.500			0.516	mg/L	103.2	
BLA02	Q2025623	NA	CHROMIUM			<	0.00400	mg/L		
LCS	Q2025624	SPEX	CHROMIUM	0.2			0.197	mg/L	98.5	
SER01	Q2026088	A790897	CHROMIUM	0		BDL		mg/L		
CCV	Q2026068	INORGANIC	CHROMIUM	5.00			5.01	mg/L	100.2	
BLA01	Q2026050	NA	CHROMIUM			<	0.00400	mg/L		
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
CCV	Q2026069	INORGANIC	CHROMIUM	5.00			5.02	mg/L	100.4	
BLA01	Q2026051	NA	CHROMIUM			<	0.00400	mg/L		
SER01	Q2026091	A790942	CHROMIUM	10.4		CNA	10.4	mg/L		
CDL01	Q2026082	INORGANIC	CHROMIUM	0.0100			0.0103	mg/L	103.0	
ICS-AB	Q2026061	PERKIN ELM	CHROMIUM	0.500			0.511	mg/L	102 2	

Q2026088 There was possible matrix interference for K

HERITAGE

SAB56048

VANADIUM ICP SW846-6010B — M138.3

Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528645 Analyst: J KRAMER — Run Date: 07-Dec-07
Analytical Reviewer: S ENDERSEN — Review Date: 10-Dec-07 — Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CDL01	Q2026082	INORGANIC	VANADIUM	0.0100			0.0102	mg/L	102.0	
ICS-AB	Q2026061	PERKIN ELM	VANADIUM	0.500			0.523	mg/L	104.6	

Q2026088 There was possible matrix interference for K
Q2026088 as indicated by the serial dilution results.

R528659 Analyst: J KRAMER — Run Date: 09-Dec-07 — Instrument: ICP
Analytical Reviewer: S ENDERSEN — Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	VANADIUM	1			0.989	mg/L	98.9	
BLA02	Q2025915	NA	VANADIUM			<	0.000800	mg/L		
LCS	Q2025916	SPEX	VANADIUM	0.5			0.491	mg/L	98.2	
SPI02	Q2025917	A791088	VANADIUM	0	0 500		0.488	mg/L	97.6	
DPS02	Q2025918	A791088	VANADIUM	0	0.500		0.475	mg/L	95.0	2.7
CDL01	Q2026315	PERKIN ELM	VANADIUM	0.100			0.0996	mg/L	99.6	
ICS-AB	Q2026299	PERKIN ELM	VANADIUM	0.500			0.504	mg/L	100.8	
SER01	Q2026328	A791512	VANADIUM	0.00360		CNA	0 00344	mg/L		
CCV	Q2026309	INORGANIC	VANADIUM	2			1.98	mg/L	99 0	
BLA01	Q2026294	NA	VANADIUM			<	0.000800	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026310	INORGANIC	VANADIUM	2			2.03	mg/L	101.5	
BLA01	Q2026295	NA	VANADIUM			<	0.000800	mg/L		
BLA02	Q2025637	NA	VANADIUM			<	0.000800	mg/L		
LCS	Q2025638	INORGANIC	VANADIUM	0.5			0 512	mg/L	102.4	
SER01	Q2026326	A790897	VANADIUM	0		BDL		mg/L		
DUP02	Q2025639	A790897	VANADIUM	0		BDL		mg/L		
SPI02	Q2025640	A790897	VANADIUM	0	0 5		0.499	mg/L	99.8	
CDL01	Q2026319	INORGANIC	VANADIUM	0.0100			0.00952	mg/L	95.2	
ICS-AB	Q2026300	PERKIN ELM	VANADIUM	0.500			0.504	mg/L	100.8	

HEXAVALENT CHROMIUM SW846-7196A — M110.6

R528528 Analyst: S BOXUM — Run Date: 05-Dec-07
Analytical Reviewer: E SOTKIEWICZ — Review Date: 05-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2025394		HEXAVALENT CHROMIUM			BDL	0.01	mg/L		
CDL01	Q2025395		HEXAVALENT CHROMIUM	0.01			0.0073	mg/L	73.0	
ICV01	Q2025396		HEXAVALENT CHROMIUM	0.25			0.259	mg/L	103.6	
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
SPI01	Q2025397	A790966	HEXAVALENT CHROMIUM	0	0.2		0.205	mg/L	102.5	
DPS01	Q2025398	A790966	HEXAVALENT CHROMIUM	0	0.2		0.206	mg/L	103.0	0.5
CCV	Q2025399		HEXAVALENT CHROMIUM	0 25			0.255	mg/L	102.0	

HERITAGE

SAB56048

COBALT ICP SW846-6010B **M111.3**
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528659 Analyst: J KRAMER Run Date: 09-Dec-07
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SER01	Q2026326	A790897	COBALT	0		CNA	0.00265	mg/L		
DUP02	Q2025639	A790897	COBALT	0		BDL		mg/L		
SPI02	Q2025640	A790897	COBALT	0	0.5		0.473	mg/L	94.6	
CDL01	Q2026319	INORGANIC	COBALT	0.0100			0.00976	mg/L	97 6	
ICS-AB	Q2026300	PERKIN ELM	COBALT	0.500			0.471	mg/L	94.2	

VANADIUM ICP SW846-6010B **M138.3**
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Analyst: P MATAKA Run Date: 07-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528645							
SAMPLE	A790958	Rep: 0	Analytical Run: R528645							
BLA02	Q2025637	NA	Analytical Run: R528659							
LCS	Q2025638	INORGANIC	Analytical Run: R528659							
DUP02	Q2025639	A790897	Analytical Run: R528659							
SPI02	Q2025640	A790897	Analytical Run: R528659							

R528615 Analyst: J KRAMER Run Date: 08-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run: R528659							

R528645 Analyst: J KRAMER Run Date: 07-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	*Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026093	PERKIN ELM	VANADIUM	1			1.06	mg/L	106.0	
CDL01	Q2026083	INORGANIC	VANADIUM	10			10.0	mg/L	100.0	
ICS-AB	Q2026060	PERKIN ELM	VANADIUM	0 500			0.527	mg/L	105.4	
BLA02	Q2025623	NA	VANADIUM			<	0.00400	mg/L		
LCS	Q2025624	SPEX	VANADIUM	0.5			0.502	mg/L	100.4	
SER01	Q2026088	A790897	VANADIUM	0		BDL		mg/L		
CCV	Q2026068	INORGANIC	VANADIUM	2			2.02	mg/L	101.0	
BLA01	Q2026050	NA	VANADIUM			<	0.00400	mg/L		
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
CCV	Q2026069	INORGANIC	VANADIUM	2			2.02	mg/L	101.0	
BLA01	Q2026051	NA	VANADIUM			<	0.00400	mg/L		
SER01	Q2026091	A790942	VANADIUM	2.99		CNA	2.72	mg/L		

HERITAGE

SAB56048

COBALT ICP SW846-6010B **M111.3**

Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528615 Analyst: J KRAMER Run Date: 08-Dec-07
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run: R528659							

R528645 Analyst: J KRAMER Run Date: 07-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026093	PERKIN ELM	COBALT	1			1.07	mg/L	107.0	
CDL01	Q2026083	INORGANIC	COBALT	10			10.0	mg/L	100.0	
ICS-AB	Q2026060	PERKIN ELM	COBALT	0.500			0.490	mg/L	98.0	
BLA02	Q2025623	NA	COBALT			<	0.00400	mg/L		
LCS	Q2025624	SPEX	COBALT	0.5			0.488	mg/L	97.6	
SER01	Q2026088	A790897	COBALT	0		BDL		mg/L		
CCV	Q2026068	INORGANIC	COBALT	5.00			4.93	mg/L	98.6	
BLA01	Q2026050	NA	COBALT			<	0.00400	mg/L		
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
CCV	Q2026069	INORGANIC	COBALT	5.00			4.95	mg/L	99.0	
BLA01	Q2026051	NA	COBALT			<	0.00400	mg/L		
SER01	Q2026091	A790942	COBALT	20.2		CNA	20.6	mg/L		
CDL01	Q2026082	INORGANIC	COBALT	0 0100			0.00999	mg/L	99.9	
ICS-AB	Q2026061	PERKIN ELM	COBALT	0.500			0.486	mg/L	97.2	

Q2026088 There was possible matrix interference for K
Q2026088 as indicated by the serial dilution results.

R528659 Analyst: J KRAMER Run Date: 09-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	COBALT	1			0.983	mg/L	98.3	
BLA02	Q2025915	NA	COBALT			<	0.000800	mg/L		
LCS	Q2025916	SPEX	COBALT	0.5			0.472	mg/L	94.4	
SPI02	Q2025917	A791088	COBALT	0	0.500		0.461	mg/L	92 2	
DPS02	Q2025918	A791088	COBALT	0	0.500		0.449	mg/L	89.8	2.6
CDL01	Q2026315	PERKIN ELM	COBALT	0.100			0.0979	mg/L	97.9	
ICS-AB	Q2026299	PERKIN ELM	COBALT	0.500			0.468	mg/L	93.6	
SER01	Q2026328	A791512	COBALT	0		CNA	0.00222	mg/L		
CCV	Q2026309	INORGANIC	COBALT	5.00			4.79	mg/L	95.8	
BLA01	Q2026294	NA	COBALT			<	0.000800	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026310	INORGANIC	COBALT	5.00			4.85	mg/L	97.0	
BLA01	Q2026295	NA	COBALT			<	0 000800	mg/L		
BLA02	Q2025637	NA	COBALT			<	0.000800	mg/L		
LCS	Q2025638	INORGANIC	COBALT	0.5			0.494	mg/L	98.8	

HERITAGE

SAB56048

ARSENIC TRACE ICP SW846-6010B — M103.0
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528659 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 09-Dec-07 — Review Date: 10-Dec-07 — Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CDL01	Q2026315	PERKIN ELM	ARSENIC	0.02			0.0189	mg/L	94.5	
ICS-AB	Q2026299	PERKIN ELM	ARSENIC	0.1			0.100	mg/L	100.0	
SER01	Q2026328	A791512	ARSENIC	0		BDL		mg/L		
CCV	Q2026309	INORGANIC	ARSENIC	2			1.96	mg/L	98.0	
BLA01	Q2026294	NA	ARSENIC			<	0.00200	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026310	INORGANIC	ARSENIC	2			2.00	mg/L	100.0	
BLA01	Q2026295	NA	ARSENIC			<	0.00200	mg/L		
BLA02	Q2025637	NA	ARSENIC			<	0.00200	mg/L		
LCS	Q2025638	INORGANIC	ARSENIC	2			2.06	mg/L	103 0	
SER01	Q2026326	A790897	ARSENIC	0		BDL		mg/L		
DUP02	Q2025639	A790897	ARSENIC	0		BDL		mg/L		
SPI02	Q2025640	A790897	ARSENIC	0	2		2.10	mg/L	105.0	
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
CCV	Q2026311	INORGANIC	ARSENIC	2			1.95	mg/L	97 5	
BLA01	Q2026296	NA	ARSENIC			<	0.00200	mg/L		
CDL01	Q2026319	INORGANIC	ARSENIC	0.01			0.0103	mg/L	103.0	
ICS-AB	Q2026300	PERKIN ELM	ARSENIC	0.1			0 101	mg/L	101.0	

R528708 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 10-Dec-07 — Review Date: 11-Dec-07 — Instrument: TRACE ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LCS	Q2025624	SPEX	ARSENIC	2			2 04	mg/L	102.0	

COBALT ICP SW846-6010B — M111.3
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Prep — Analyst: P MATAKA — Reviewer: S ENDERSEN — Run Date: 07-Dec-07 — Review Date: 10-Dec-07 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528645							
SAMPLE	A790958	Rep: 0	Analytical Run: R528645							
BLA02	Q2025637	NA	Analytical Run: R528659							
LCS	Q2025638	INORGANIC	Analytical Run: R528659							
DUP02	Q2025639	A790897	Analytical Run: R528659							
SPI02	Q2025640	A790897	Analytical Run: R528659							

R528615 Prep — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 08-Dec-07 — Review Date: 10-Dec-07 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							

HERITAGE

SAB56048

CYANIDE, TOTAL (AUTOMATED) SW846-9012B — G101.4
Prep : CYANIDE DISTILLATION SW846-9012B

R528926 Analyst: G COOPER — Run Date: 11-Dec-07
Prep Reviewer: P SPENCE — Review Date. 14-Dec-07

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2027291		Analytical Run: R528770							
LFB02L	Q2027292		Analytical Run: R528770							
LFB02H	Q2028441		Analytical Run: R528915							
SPI02	Q2027293	A790581	Analytical Run: R528770							
DPS02	Q2027294	A790581	Analytical Run: R528770							
SAMPLE	A790958	Rep: 0	Analytical Run: R528770							
SAMPLE	A790959	Rep: 0	Analytical Run: R528770							
SAMPLE	A790960	Rep: 0	Analytical Run: R528770							

ARSENIC TRACE ICP SW846-6010B — M103.0
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Analyst: P MATAKA — Run Date: 07-Dec-07 — Instrument: PREP
Prep Reviewer: S ENDERSEN — Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528708							
SAMPLE	A790958	Rep: 0	Analytical Run: R528659							
BLA02	Q2025637	NA	Analytical Run: R528659							
LCS	Q2025638	INORGANIC	Analytical Run: R528659							
DUP02	Q2025639	A790897	Analytical Run: R528659							
SPI02	Q2025640	A790897	Analytical Run: R528659							

R528615 Analyst: J KRAMER — Run Date: 08-Dec-07 — Instrument: PREP
Prep Reviewer: S ENDERSEN — Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run: R528659							

R528645 Analyst: J KRAMER — Run Date: 07-Dec-07 — Instrument: TRACE ICP
Analytical Reviewer: S ENDERSEN — Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	ARSENIC			<	0.00400	mg/L		

R528659 Analyst: J KRAMER — Run Date: 09-Dec-07 — Instrument: TRACE ICP
Analytical Reviewer: S ENDERSEN — Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	ARSENIC	1			0.989	mg/L	98.9	
BLA02	Q2025915	NA	ARSENIC			<	0.00200	mg/L		
LCS	Q2025916	SPEX	ARSENIC	2			2.00	mg/L	100.0	
SPI02	Q2025917	A791088	ARSENIC	0	2		2.03	mg/L	101 5	
DPS02	Q2025918	A791088	ARSENIC	0	2		1.98	mg/L	99.0	2.5

HERITAGE

SAB56048

SODIUM ICP SW846-6010B — M131.3
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528659 Analyst: J KRAMER — Run Date: 09-Dec-07
Analytical Reviewer: S ENDERSEN — Review Date: 10-Dec-07 — Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	SODIUM	20			19.2	mg/L	96.0	
BLA02	Q2025915	NA	SODIUM			<	0.0400	mg/L		
LCS	Q2025916	SPEX	SODIUM	100			99.0	mg/L	99.0	
SPI02	Q2025917	A791088	SODIUM	79 8	100		182	mg/L	102.2	
DPS02	Q2025918	A791088	SODIUM	79.8	100		176	mg/L	96.2	6.0
CDL01	Q2026318	INORGANIC	SODIUM	0.1			0.0899	mg/L	89.9	
SER01	Q2026328	A791512	SODIUM	165			159	mg/L		3.7
CCV	Q2026309	INORGANIC	SODIUM	50			49.8	mg/L	99.6	
BLA01	Q2026294	NA	SODIUM			<	0.0400	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026310	INORGANIC	SODIUM	50			50.6	mg/L	101.2	
BLA01	Q2026295	NA	SODIUM			<	0.0400	mg/L		
SER01	Q2026326	A790897	SODIUM	159			145	mg/L		9.2
CDL01	Q2026319	INORGANIC	SODIUM	0.1			0.0890	mg/L	89.0	

CYANIDE, TOTAL (AUTOMATED) SW846-9012B — G101.4
Prep : CYANIDE DISTILLATION SW846-9012B

R528770 Analyst: E SOTKIEWICZ — Run Date: 11-Dec-07 — Instrument: AUTO-ANALYZER
Analytical Reviewer: P SPENCE — Review Date: 14-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CDL01	Q2027289		CYANIDE	0.005			0.0053	mg/L	106.0	
ICV01	Q2027290		CYANIDE	0.150			0.143	mg/L	95.3	
BLA02	Q2027291		CYANIDE			BDL	0.005	mg/L		
LFB02L	Q2027292		CYANIDE	0.100			0.0984	mg/L	98.4	
SPI02	Q2027293	A790581	CYANIDE	0	0.250		0.194	mg/L	77.6	
DPS02	Q2027294	A790581	CYANIDE	0	0.250		0.202	mg/L	80.8	4.0
CCV	Q2027295		CYANIDE	0.100			0.0926	mg/L	92.6	
BLA01	Q2027296		CYANIDE			BDL	0.003	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2027297		CYANIDE	0.100			0.0972	mg/L	97.2	
BLA01	Q2027298		CYANIDE			BDL	0.003	mg/L		
BLA01	Q2027303		CYANIDE			BDL	0.005	mg/L		
CCV	Q2027304		CYANIDE	0.100			0.0938	mg/L	93.8	
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
CCV	Q2027305		CYANIDE	0.100			0.0922	mg/L	92.2	
BLA01	Q2027306		CYANIDE			BDL	0.005	mg/L		

R528915 Analyst: E SOTKIEWICZ — Run Date: 12-Dec-07 — Instrument: AUTO-ANALYZER
Analytical Reviewer: P SPENCE — Review Date: 14-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LFB02H	Q2028441		CYANIDE	0.500			0.476	mg/L	95.2	

R528926 Analyst: G COOPER — Run Date: 11-Dec-07 — Instrument: PREP
Prep Reviewer: P SPENCE — Review Date: 14-Dec-07

HERITAGE

SAB56048

CALCIUM ICP SW846-6010B **M109.3**
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528708 Analyst: J KRAMER Run Date: 10-Dec-07
Analytical Reviewer: S ENDERSEN Review Date: 11-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LCS	Q2025624	SPEX	CALCIUM	100			94.4	mg/L	94.4	

SODIUM ICP SW846-6010B **M131.3**
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Analyst: P MATAKA Run Date: 07-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528645							
DUP02	Q2025625	A790897	Analytical Run: R528645							
SPI02	Q2025626	A790897	Analytical Run: R528645							
SAMPLE	A790958	Rep: 0	Analytical Run: R528645							

R528615 Analyst: J KRAMER Run Date: 08-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run: R528659							

R528645 Analyst: J KRAMER Run Date: 07-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026093	PERKIN ELM	SODIUM	20			22.0	mg/L	110.0	
CDL01	Q2026081	INORGANIC	SODIUM	0.1			0.0861	mg/L	86.1	
BLA02	Q2025623	NA	SODIUM			<	0.0400	mg/L		
LCS	Q2025624	SPEX	SODIUM	100			98.3	mg/L	98.3	
SER01	Q2026088	A790897	SODIUM	152			158	mg/L		3.9
DUP02	Q2025625	A790897	SODIUM	152			153	mg/L		0.6
SPI02	Q2025626	A790897	SODIUM	152	100		265	mg/L	113.0	
CCV	Q2026068	INORGANIC	SODIUM	50			53.6	mg/L	107.2	
BLA01	Q2026050	NA	SODIUM			<	0.0400	mg/L		
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
CCV	Q2026069	INORGANIC	SODIUM	50			53.8	mg/L	107.6	
BLA01	Q2026051	NA	SODIUM			<	0.0400	mg/L		
SER01	Q2026086	A790513	SODIUM	296			330	mg/L		10.9
CDL01	Q2026082	INORGANIC	SODIUM	0.1			0.155	mg/L	155.0	

Q2026088 There was possible matrix interference for K
Q2026088 as indicated by the serial dilution results.

R528659 Analyst: J KRAMER Run Date: 09-Dec-07 Instrument: ICP

HERITAGE

SAB56048

CALCIUM ICP SW846-6010B **M109.3**

Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528650 Analyst: J KRAMER Run Date: 08-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026127	PERKIN ELM	CALCIUM	20			20.0	mg/L	100.0	
CDL01	Q2026122	INORGANIC	CALCIUM	0.1			0.0763	mg/L	76.3	
ICS-A	Q2026125	PERKIN-ELM	CALCIUM	500			472	mg/L	94.4	
ICS-AB	Q2026142	PERKIN ELM	CALCIUM	500			481	mg/L	96.2	
SER01	Q2026173	A791512	CALCIUM	18.2			18.2	mg/L		0
CCV	Q2026151	INORGANIC	CALCIUM	50.0			49.8	mg/L	99.6	
BLA01	Q2026131	NA	CALCIUM			<	0.0400	mg/L		
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
CCV	Q2026152	INORGANIC	CALCIUM	50.0			50.1	mg/L	100.2	
BLA01	Q2026132	NA	CALCIUM			<	0.0400	mg/L		
SER01	Q2026169	A790885	CALCIUM	469			485	mg/L		3.4
CDL01	Q2026167	INORGANIC	CALCIUM	0.1			0.0651	mg/L	65.1	
ICS-A	Q2026168	PERKIN-ELM	CALCIUM	500			469	mg/L	93.8	
ICS-AB	Q2026143	PERKIN ELM	CALCIUM	500			485	mg/L	97.0	

Q2026173 There was possible matrix interference for K
Q2026173 as indicated by the serial dilution results.

R528659 Analyst: J KRAMER Run Date: 09-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	CALCIUM	20			19 7	mg/L	98.5	
BLA02	Q2025915	NA	CALCIUM			<	0.0400	mg/L		
LCS	Q2025916	SPEX	CALCIUM	100			95.9	mg/L	95.9	
SPI02	Q2025917	A791088	CALCIUM	114	100		210	mg/L	96 0	
DPS02	Q2025918	A791088	CALCIUM	114	100		202	mg/L	88.0	8.7
CDL01	Q2026318	INORGANIC	CALCIUM	0.1			0.0922	mg/L	92.2	
ICS-A	Q2026323	PERKIN-ELM	CALCIUM	500			448	mg/L	89 6	
ICS-AB	Q2026299	PERKIN ELM	CALCIUM	500			461	mg/L	92 2	
SER01	Q2026328	A791512	CALCIUM	19.6			20.0	mg/L		2.0
CCV	Q2026309	INORGANIC	CALCIUM	50.0			48.0	mg/L	96 0	
BLA01	Q2026294	NA	CALCIUM			<	0.0400	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026310	INORGANIC	CALCIUM	50.0			49.1	mg/L	98.2	
BLA01	Q2026295	NA	CALCIUM			<	0.0400	mg/L		
SER01	Q2026326	A790897	CALCIUM	227			229	mg/L		0.9
DUP02	Q2025639	A790897	CALCIUM	227			226	mg/L		0.4
CDL01	Q2026319	INORGANIC	CALCIUM	0.1			0.0894	mg/L	89.4	
ICS-A	Q2026324	PERKIN-ELM	CALCIUM	500			447	mg/L	89.4	
ICS-AB	Q2026300	PERKIN ELM	CALCIUM	500			454	mg/L	90.8	

R528708 Analyst: J KRAMER Run Date: 10-Dec-07 Instrument: ICP

HERITAGE

SAB56048

MERCURY CVAA SW846-7470A — M120.1

Prep : MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A

R529244 Prep — Analyst: S O'NEAL — Reviewer: — Run Date: 20-Dec-07 — Review Date: 21-Dec-07 — Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	A790960	Rep: 0	Analytical Run: R529332							

R529332 Analytical — Analyst: S O'NEAL — Reviewer: W WATNESS — Run Date: 21-Dec-07 — Review Date: 26-Dec-07 — Instrument: CVAA

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2031556		MERCURY	0.0020			0.00207	mg/L	103 5	
CDL01	Q2031560		MERCURY	0.00020			0.000199	mg/L	99.5	
LCS	Q2030907		MERCURY	0.0020			0.00203	mg/L	101.5	
BLA02	Q2030908		MERCURY			<	0.030	ug/L		
SPI02	Q2030909	A791088	MERCURY	0	0.0010		0.00101	mg/L	101.0	
DPS02	Q2030910	A791088	MERCURY	0	0.0010		0.000946	mg/L	94 6	6.5
CCV	Q2031563		MERCURY	0 0030			0.00301	mg/L	100.3	
BLA01	Q2031564		MERCURY			<	0.030	ug/L		
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2031565		MERCURY	0.0030			0.0030	mg/L	100.0	
BLA01	Q2031566		MERCURY			<	0.030	ug/L		

CALCIUM ICP SW846-6010B — M109.3

Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Prep — Analyst: P MATAKA — Reviewer: S ENDERSEN — Run Date: 07-Dec-07 — Review Date: 10-Dec-07 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528708							
SPI02	Q2025626	A790897	Analytical Run: R528645							
SAMPLE	A790958	Rep: 0	Analytical Run: R528650							
DUP02	Q2025639	A790897	Analytical Run: R528659							

R528615 Prep — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 08-Dec-07 — Review Date: 10-Dec-07 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run: R528659							

R528645 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 07-Dec-07 — Review Date: 10-Dec-07 — Instrument: ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	CALCIUM			<	0.0400	mg/L		
SPI02	Q2025626	A790897	CALCIUM	226	100		328	mg/L	102.0	

HERITAGE

SAB56048

ANTIMONY ICP SW846-6010B — M102.3
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528645 Analyst: J KRAMER — Run Date: 07-Dec-07
Analytical Reviewer: S ENDERSEN — Review Date: 10-Dec-07

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CCV	Q2026069	INORGANIC	ANTIMONY	1			0.987	mg/L	98.7	
BLA01	Q2026051	NA	ANTIMONY			<	0.00400	mg/L		
SER01	Q2026091	A790942	ANTIMONY	8 06		CNA	12.7	mg/L		
CDL01	Q2026082	INORGANIC	ANTIMONY	0.01			0.0102	mg/L	102.0	
ICS-AB	Q2026061	PERKIN ELM	ANTIMONY	0.6			0.613	mg/L	102.2	

Q2026088 There was possible matrix interference for K
Q2026088 as indicated by the serial dilution results.

R528659 Analyst: J KRAMER — Run Date: 09-Dec-07 — Instrument: ICP
Analytical Reviewer: S ENDERSEN — Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	ANTIMONY	0.5			0.486	mg/L	97.2	
BLA02	Q2025915	NA	ANTIMONY				0.00292	mg/L		
LCS	Q2025916	SPEX	ANTIMONY	0.5			0 510	mg/L	102.0	
SPI02	Q2025917	A791088	ANTIMONY	0	0.500		0.511	mg/L	102.2	
DPS02	Q2025918	A791088	ANTIMONY	0	0.500		0.500	mg/L	100.0	2.2
CDL01	Q2026315	PERKIN ELM	ANTIMONY	0 120			0.118	mg/L	98.3	
ICS-AB	Q2026299	PERKIN ELM	ANTIMONY	0.6			0.612	mg/L	102.0	
SER01	Q2026328	A791512	ANTIMONY	0.0937		CNA	0.0972	mg/L		
CCV	Q2026309	INORGANIC	ANTIMONY	1			0.963	mg/L	96.3	
BLA01	Q2026294	NA	ANTIMONY			<	0.00200	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026310	INORGANIC	ANTIMONY	1			0.985	mg/L	98.5	
BLA01	Q2026295	NA	ANTIMONY			<	0.00200	mg/L		
BLA02	Q2025637	NA	ANTIMONY			<	0.00200	mg/L		
LCS	Q2025638	INORGANIC	ANTIMONY	0.5			0.528	mg/L	105.6	
SER01	Q2026326	A790897	ANTIMONY	0		BDL		mg/L		
DUP02	Q2025639	A790897	ANTIMONY	0		BDL		mg/L		
SPI02	Q2025640	A790897	ANTIMONY	0	0.5		0.533	mg/L	106.6	
CDL01	Q2026319	INORGANIC	ANTIMONY	0.01			0.0110	mg/L	110.0	
ICS-AB	Q2026300	PERKIN ELM	ANTIMONY	0.6			0.617	mg/L	102.8	

MERCURY CVAA SW846-7470A — M120.1
Prep : MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A

R529244 Analyst: S O'NEAL — Run Date: 20-Dec-07 — Instrument: PREP
Prep Reviewer: — Review Date: 21-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LCS	Q2030907		Analytical Run: R529332							
BLA02	Q2030908		Analytical Run: R529332							
SPI02	Q2030909	A791088	Analytical Run: R529332							
DPS02	Q2030910	A791088	Analytical Run: R529332							
SAMPLE	A790958	Rep: 0	Analytical Run: R529332							
SAMPLE	A790959	Rep: 0	Analytical Run: R529332							

HERITAGE

SAB56048

MANGANESE ICP SW846-6010B — M119.3
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528659 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 09-Dec-07 — Review Date: 10-Dec-07 — Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2026295	NA	MANGANESE			<	0.000800	mg/L		
BLA02	Q2025637	NA	MANGANESE			<	0.000800	mg/L		
LCS	Q2025638	INORGANIC	MANGANESE	0.5			0.490	mg/L	98 0	
SER01	Q2026326	A790897	MANGANESE	0.382			0.392	mg/L		2.6
DUP02	Q2025639	A790897	MANGANESE	0.382			0.385	mg/L		0.8
SPI02	Q2025640	A790897	MANGANESE	0.382	0.5		0.861	mg/L	95.8	
CDL01	Q2026319	INORGANIC	MANGANESE	0.0100			0 00986	mg/L	98.6	
ICS-AB	Q2026300	PERKIN ELM	MANGANESE	0.500			0.466	mg/L	93.2	

ANTIMONY ICP SW846-6010B — M102.3
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Prep — Analyst: P MATAKA — Reviewer: S ENDERSEN — Run Date: 07-Dec-07 — Review Date: 10-Dec-07 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528645							
SAMPLE	A790958	Rep: 0	Analytical Run: R528645							
BLA02	Q2025637	NA	Analytical Run: R528659							
LCS	Q2025638	INORGANIC	Analytical Run: R528659							
DUP02	Q2025639	A790897	Analytical Run: R528659							
SPI02	Q2025640	A790897	Analytical Run: R528659							

R528615 Prep — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 08-Dec-07 — Review Date: 10-Dec-07 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run: R528659							

R528645 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 07-Dec-07 — Review Date: 10-Dec-07 — Instrument: ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026093	PERKIN ELM	ANTIMONY	0.5			0.517	mg/L	103.4	
CDL01	Q2026079	PERKIN ELM	ANTIMONY	0.120			0.115	mg/L	95.8	
ICS-AB	Q2026060	PERKIN ELM	ANTIMONY	0.6			0.640	mg/L	106.7	
BLA02	Q2025623	NA	ANTIMONY			<	0.00400	mg/L		
LCS	Q2025624	SPEX	ANTIMONY	0.5			0.496	mg/L	99.2	
SER01	Q2026088	A790897	ANTIMONY	0		CNA	0.0184	mg/L		
CCV	Q2026068	INORGANIC	ANTIMONY	1			0.984	mg/L	98.4	
BLA01	Q2026050	NA	ANTIMONY			<	0 00400	mg/L		
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							

HERITAGE

SAB56048

MANGANESE ICP SW846-6010B **M119.3**

Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528615 Analyst: J KRAMER Run Date: 08-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run: R528659							

R528645 Analyst: J KRAMER Run Date: 07-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026093	PERKIN ELM	MANGANESE	1			1.06	mg/L	106.0	
CDL01	Q2026083	INORGANIC	MANGANESE	10			9.97	mg/L	99.7	
ICS-AB	Q2026060	PERKIN ELM	MANGANESE	0.500			0.504	mg/L	100.8	
BLA02	Q2025623	NA	MANGANESE			<	0.00400	mg/L		
LCS	Q2025624	SPEX	MANGANESE	0.5			0.484	mg/L	96.8	
SER01	Q2026088	A790897	MANGANESE	0.385			0.401	mg/L		4.1
CCV	Q2026068	INORGANIC	MANGANESE	5.00			4.92	mg/L	98.4	
BLA01	Q2026050	NA	MANGANESE			<	0.00400	mg/L		
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
CCV	Q2026069	INORGANIC	MANGANESE	5.00			4.91	mg/L	98.2	
BLA01	Q2026051	NA	MANGANESE			<	0.00400	mg/L		
SER01	Q2026091	A790942	MANGANESE	200			198	mg/L		1.0
CDL01	Q2026082	INORGANIC	MANGANESE	0.0100			0.00752	mg/L	75.2	
ICS-AB	Q2026061	PERKIN ELM	MANGANESE	0.500			0.494	mg/L	98.8	

Q2026088 There was possible matrix interference for K
Q2026088 as indicated by the serial dilution results.

R528659 Analyst: J KRAMER Run Date: 09-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	MANGANESE	1			0.990	mg/L	99.0	
BLA02	Q2025915	NA	MANGANESE			<	0.000800	mg/L		
LCS	Q2025916	SPEX	MANGANESE	0.5			0.474	mg/L	94.8	
SPI02	Q2025917	A791088	MANGANESE	0.0628	0.500		0.531	mg/L	93 6	
DPS02	Q2025918	A791088	MANGANESE	0.0628	0.500		0.517	mg/L	90.8	3.0
CDL01	Q2026315	PERKIN ELM	MANGANESE	0.030			0.0297	mg/L	99.0	
ICS-AB	Q2026299	PERKIN ELM	MANGANESE	0.500			0.472	mg/L	94.4	
SER01	Q2026328	A791512	MANGANESE	0.0144		CNA	0.0162	mg/L		
CCV	Q2026309	INORGANIC	MANGANESE	5.00			4.75	mg/L	95.0	
BLA01	Q2026294	NA	MANGANESE			<	0.000800	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026310	INORGANIC	MANGANESE	5.00			4.90	mg/L	98.0	

HERITAGE

SAB56048

COPPER ICP SW846-6010B — M112.3

Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528645 Analyst: J KRAMER — Run Date: 07-Dec-07
Analytical Reviewer: S ENDERSEN — Review Date: 10-Dec-07 — Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CCV	Q2026068	INORGANIC	COPPER	5.00			5.02	mg/L	100.4	
BLA01	Q2026050	NA	COPPER			<	0.00400	mg/L		
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
CCV	Q2026069	INORGANIC	COPPER	5.00			5.05	mg/L	101.0	
BLA01	Q2026051	NA	COPPER			<	0.00400	mg/L		
SER01	Q2026091	A790942	COPPER	32.6		CNA	32.3	mg/L		
CDL01	Q2026082	INORGANIC	COPPER	0.01			0.0102	mg/L	102.0	
ICS-AB	Q2026061	PERKIN ELM	COPPER	0 500			0.560	mg/L	112.0	

Q2026088 There was possible matrix interference for K
Q2026088 as indicated by the serial dilution results.

R528659 Analyst: J KRAMER — Run Date: 09-Dec-07 — Instrument: ICP
Analytical Reviewer: S ENDERSEN — Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	COPPER	1			0.996	mg/L	99.6	
BLA02	Q2025915	NA	COPPER			<	0.00400	mg/L		
LCS	Q2025916	SPEX	COPPER	0.25			0.245	mg/L	98.0	
SPI02	Q2025917	A791088	COPPER	0	0.250		0.247	mg/L	98 8	
DPS02	Q2025918	A791088	COPPER	0	0.250		0.242	mg/L	96.8	2.0
CDL01	Q2026315	PERKIN ELM	COPPER	0.050			0.0508	mg/L	101.6	
ICS-AB	Q2026299	PERKIN ELM	COPPER	0.500			0 533	mg/L	106.6	
SER01	Q2026328	A791512	COPPER	0.0282		CNA	0.0291	mg/L		
CCV	Q2026309	INORGANIC	COPPER	5.00			4.97	mg/L	99.4	
BLA01	Q2026294	NA	COPPER			<	0.00400	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026310	INORGANIC	COPPER	5.00			5.09	mg/L	101.8	
BLA01	Q2026295	NA	COPPER			<	0.00400	mg/L		
SER01	Q2026326	A790897	COPPER	0		BDL		mg/L		
CDL01	Q2026319	INORGANIC	COPPER	0.01			0.0100	mg/L	100.0	
ICS-AB	Q2026300	PERKIN ELM	COPPER	0.500			0.542	mg/L	108.4	

MANGANESE ICP SW846-6010B — M119.3

Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Analyst: P MATAKA — Run Date: 07-Dec-07 — Instrument: PREP
Prep Reviewer: S ENDERSEN — Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528645							
SAMPLE	A790958	Rep: 0	Analytical Run: R528645							
BLA02	Q2025637	NA	Analytical Run: R528659							
LCS	Q2025638	INORGANIC	Analytical Run: R528659							
DUP02	Q2025639	A790897	Analytical Run: R528659							
SPI02	Q2025640	A790897	Analytical Run: R528659							

HERITAGE

SAB56048

BARIUM ICP SW846-6010B — M104.3
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528659 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 09-Dec-07 — Review Date: 10-Dec-07 — Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICS-AB	Q2026299	PERKIN ELM	BARIUM	0.500			0.493	mg/L	98.6	
SER01	Q2026328	A791512	BARIUM	0		BDL		mg/L		
CCV	Q2026309	INORGANIC	BARIUM	5.00			4.78	mg/L	95.6	
BLA01	Q2026294	NA	BARIUM			<	0.00400	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026310	INORGANIC	BARIUM	5.00			4.92	mg/L	98.4	
BLA01	Q2026295	NA	BARIUM			<	0.00400	mg/L		
SER01	Q2026326	A790897	BARIUM	0.0521		CNA	0.0522	mg/L		
CDL01	Q2026319	INORGANIC	BARIUM	0 0100			0.00977	mg/L	97 7	
ICS-AB	Q2026300	PERKIN ELM	BARIUM	0.500			0.486	mg/L	97.2	

COPPER ICP SW846-6010B — M112.3
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Prep — Analyst: P MATAKA — Reviewer: S ENDERSEN — Run Date: 07-Dec-07 — Review Date: 10-Dec-07 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528645							
DUP02	Q2025625	A790897	Analytical Run: R528645							
SPI02	Q2025626	A790897	Analytical Run: R528645							
SAMPLE	A790958	Rep: 0	Analytical Run: R528645							

R528615 Prep — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 08-Dec-07 — Review Date: 10-Dec-07 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run: R528659							

R528645 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 07-Dec-07 — Review Date: 10-Dec-07 — Instrument: ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026093	PERKIN ELM	COPPER	1			1.06	mg/L	106.0	
CDL01	Q2026083	INORGANIC	COPPER	10			10.0	mg/L	100.0	
ICS-AB	Q2026060	PERKIN ELM	COPPER	0.500			0.558	mg/L	111.6	
BLA02	Q2025623	NA	COPPER			<	0.00400	mg/L		
LCS	Q2025624	SPEX	COPPER	0.25			0.250	mg/L	100.0	
SER01	Q2026088	A790897	COPPER	0		BDL		mg/L		
DUP02	Q2025625	A790897	COPPER	0		BDL		mg/L		
SPI02	Q2025626	A790897	COPPER	0	0.250		0.263	mg/L	105.2	

HERITAGE

SAB56048

BARIUM ICP SW846-6010B **M104.3**

Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Analyst: P MATAKA Run Date: 07-Dec-07
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SPI02	Q2025626	A790897	Analytical Run: R528645							
SAMPLE	A790958	Rep: 0	Analytical Run: R528645							

R528615 Analyst: J KRAMER Run Date: 08-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run: R528659							

R528645 Analyst: J KRAMER Run Date: 07-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026093	PERKIN ELM	BARIUM	1			1.07	mg/L	107.0	
CDL01	Q2026083	INORGANIC	BARIUM	10			9.98	mg/L	99.8	
ICS-AB	Q2026060	PERKIN ELM	BARIUM	0.500			0.528	mg/L	105.6	
BLA02	Q2025623	NA	BARIUM			<	0.00400	mg/L		
LCS	Q2025624	SPEX	BARIUM	2			1.96	mg/L	98.0	
SER01	Q2026088	A790897	BARIUM	0.0520		CNA	0.0526	mg/L		
DUP02	Q2025625	A790897	BARIUM	0.0520			0.0520	mg/L		0
SPI02	Q2025626	A790897	BARIUM	0.0520	2.00		2.05	mg/L	99.9	
CCV	Q2026068	INORGANIC	BARIUM	5.00			4.99	mg/L	99.8	
BLA01	Q2026050	NA	BARIUM			<	0.00400	mg/L		
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
CCV	Q2026069	INORGANIC	BARIUM	5.00			4.99	mg/L	99.8	
BLA01	Q2026051	NA	BARIUM			<	0.00400	mg/L		
SER01	Q2026091	A790942	BARIUM	16000			17200	mg/L		7.2
CDL01	Q2026082	INORGANIC	BARIUM	0.0100			0.00953	mg/L	95.3	
ICS-AB	Q2026061	PERKIN ELM	BARIUM	0.500			0.518	mg/L	103.6	

Q2026088 There was possible matrix interference for K
Q2026088 as indicated by the serial dilution results.

R528659 Analyst: J KRAMER Run Date: 09-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	BARIUM	1			0.995	mg/L	99.5	
BLA02	Q2025915	NA	BARIUM			<	0.00400	mg/L		
LCS	Q2025916	SPEX	BARIUM	2			1.94	mg/L	97.0	
SPI02	Q2025917	A791088	BARIUM	0.0422	2.00		1.97	mg/L	96.4	
DPS02	Q2025918	A791088	BARIUM	0.0422	2.00		1.92	mg/L	93.9	2.6
CDL01	Q2026318	INORGANIC	BARIUM	0.0100			0.0100	mg/L	100.0	

HERITAGE

SAB56048

SILVER ICP SW846-6010B **M130.3**

Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528645 Analyst: J KRAMER Run Date: 07-Dec-07
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CCV	Q2026068	INORGANIC	SILVER	1.00			1.01	mg/L	101.0	
BLA01	Q2026050	NA	SILVER			<	0.00400	mg/L		
SAMPLE	A790958		See Certificate of Analysis. Rep: 0							
CCV	Q2026069	INORGANIC	SILVER	1.00			1.01	mg/L	101 0	
BLA01	Q2026051	NA	SILVER			<	0.00400	mg/L		
SER01	Q2026091	A790942	SILVER	0 0908		CNA	0.117	mg/L		
CDL01	Q2026082	INORGANIC	SILVER	0.0100			0.0102	mg/L	102.0	
ICS-AB	Q2026061	PERKIN ELM	SILVER	0.2			0.227	mg/L	113 5	

Q2026088 There was possible matrix interference for K
Q2026088 as indicated by the serial dilution results.

R528659 Analyst: J KRAMER Run Date: 09-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	SILVER	0.5			0.490	mg/L	98.0	
BLA02	Q2025915	NA	SILVER			<	0.000800	mg/L		
LCS	Q2025916	SPEX	SILVER	0.05			0.0495	mg/L	99.0	
SPI02	Q2025917	A791088	SILVER	0	0.050		0.0502	mg/L	100.4	
DPS02	Q2025918	A791088	SILVER	0	0.050		0.0486	mg/L	97.2	3.2
CDL01	Q2026315	PERKIN ELM	SILVER	0.020			0.0195	mg/L	97.5	
ICS-AB	Q2026299	PERKIN ELM	SILVER	0.2			0.218	mg/L	109.0	
SER01	Q2026328	A791512	SILVER	0		BDL		mg/L		
CCV	Q2026309	INORGANIC	SILVER	1.00			0.978	mg/L	97.8	
BLA01	Q2026294	NA	SILVER			<	0.000800	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis. Rep: 0							
CCV	Q2026310	INORGANIC	SILVER	1.00			1.00	mg/L	100.0	
BLA01	Q2026295	NA	SILVER			<	0.000800	mg/L		
BLA02	Q2025637	NA	SILVER			<	0.000800	mg/L		
LCS	Q2025638	INORGANIC	SILVER	0.05			0.0514	mg/L	102.8	
SER01	Q2026326	A790897	SILVER	0		BDL		mg/L		
DUP02	Q2025639	A790897	SILVER	0		BDL		mg/L		
SPI02	Q2025640	A790897	SILVER	0	0 05		0.0516	mg/L	103.2	
CDL01	Q2026319	INORGANIC	SILVER	0.0100			0 00970	mg/L	97.0	
ICS-AB	Q2026300	PERKIN ELM	SILVER	0.2			0.218	mg/L	109.0	

BARIUM ICP SW846-6010B **M104.3**

Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Analyst: P MATAKA Run Date: 07-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528645							
DUP02	Q2025625	A790897	Analytical Run: R528645							

HERITAGE

SAB56048

MAGNESIUM ICP SW846-6010B — M118.3
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528659 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 09-Dec-07 — Review Date: 10-Dec-07 — Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CCV	Q2026309	INORGANIC	MAGNESIUM	50.0			47.4	mg/L	94.8	
BLA01	Q2026294	NA	MAGNESIUM			<	0.0400	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026310	INORGANIC	MAGNESIUM	50.0			48.7	mg/L	97.4	
BLA01	Q2026295	NA	MAGNESIUM			<	0.0400	mg/L		
SER01	Q2026326	A790897	MAGNESIUM	46.7			44 6	mg/L		4.6
DUP02	Q2025639	A790897	MAGNESIUM	46.7			46.6	mg/L		0.2
CDL01	Q2026319	INORGANIC	MAGNESIUM	0.1			0.0951	mg/L	95.1	
ICS-A	Q2026324	PERKIN-ELM	MAGNESIUM	500			468	mg/L	93.6	
ICS-AB	Q2026300	PERKIN ELM	MAGNESIUM	500			476	mg/L	95.2	

SILVER ICP SW846-6010B — M130.3
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Prep — Analyst: P MATAKA — Reviewer: S ENDERSEN — Run Date: 07-Dec-07 — Review Date: 10-Dec-07 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528645							
SAMPLE	A790958	Rep: 0	Analytical Run: R528645							
BLA02	Q2025637	NA	Analytical Run: R528659							
LCS	Q2025638	INORGANIC	Analytical Run: R528659							
DUP02	Q2025639	A790897	Analytical Run: R528659							
SPI02	Q2025640	A790897	Analytical Run: R528659							

R528615 Prep — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 08-Dec-07 — Review Date: 10-Dec-07 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run: R528659							

R528645 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 07-Dec-07 — Review Date: 10-Dec-07 — Instrument: ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026093	PERKIN ELM	SILVER	0.5			0.530	mg/L	106.0	
CDL01	Q2026083	INORGANIC	SILVER	2			1.96	mg/L	98.0	
ICS-AB	Q2026060	PERKIN ELM	SILVER	0.2			0.228	mg/L	114.0	
BLA02	Q2025623	NA	SILVER			<	0.00400	mg/L		
LCS	Q2025624	SPEX	SILVER	0.05			0.0522	mg/L	104.4	
SER01	Q2026088	A790897	SILVER	0		BDL		mg/L		

HERITAGE

SAB56048

MAGNESIUM ICP SW846-6010B **M118.3**
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528615 Analyst: J KRAMER Run Date: 08-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run. R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run: R528659							

R528645 Analyst: J KRAMER Run Date: 07-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026093	PERKIN ELM	MAGNESIUM	20			20.2	mg/L	101.0	
CDL01	Q2026081	INORGANIC	MAGNESIUM	0.1			0.0149	mg/L	14.9	
ICS-A	Q2026084	PERKIN-ELM	MAGNESIUM	500			498	mg/L	99.6	
ICS-AB	Q2026060	PERKIN ELM	MAGNESIUM	500			506	mg/L	101.2	
BLA02	Q2025623	NA	MAGNESIUM			<	0.0400	mg/L		
LCS	Q2025624	SPEX	MAGNESIUM	100			97.9	mg/L	97.9	
SER01	Q2026088	A790897	MAGNESIUM	44.4			45.5	mg/L		2.4
SPI02	Q2025626	A790897	MAGNESIUM	44.4	100		146	mg/L	101.6	
CCV	Q2026068	INORGANIC	MAGNESIUM	50.0			47.4	mg/L	94.8	
BLA01	Q2026050	NA	MAGNESIUM			<	0.0400	mg/L		
SAMPLE	A790958		See Certificate of Analysis. Rep: 0							
CCV	Q2026069	INORGANIC	MAGNESIUM	50.0			47 4	mg/L	94.8	
BLA01	Q2026051	NA	MAGNESIUM			<	0.0400	mg/L		
SER01	Q2026086	A790513	MAGNESIUM	42.5		CNA	12.0	mg/L		
CDL01	Q2026082	INORGANIC	MAGNESIUM	0.1			0.0109	mg/L	10.9	
ICS-A	Q2026085	PERKIN-ELM	MAGNESIUM	500			486	mg/L	97.2	
ICS-AB	Q2026061	PERKIN ELM	MAGNESIUM	500			497	mg/L	99.4	

Q2026088 There was possible matrix interference for K
Q2026088 as indicated by the serial dilution results.

R528659 Analyst: J KRAMER Run Date: 09-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	MAGNESIUM	20			19.6	mg/L	98.0	
BLA02	Q2025915	NA	MAGNESIUM			<	0.0400	mg/L		
LCS	Q2025916	SPEX	MAGNESIUM	100			99.4	mg/L	99.4	
SPI02	Q2025917	A791088	MAGNESIUM	58.8	100		161	mg/L	102 2	
DPS02	Q2025918	A791088	MAGNESIUM	58.8	100		156	mg/L	97.2	5.0
CDL01	Q2026318	INORGANIC	MAGNESIUM	0.1			0.0981	mg/L	98.1	
ICS-A	Q2026323	PERKIN-ELM	MAGNESIUM	500			468	mg/L	93.6	
ICS-AB	Q2026299	PERKIN ELM	MAGNESIUM	500			483	mg/L	96.6	
SER01	Q2026328	A791512	MAGNESIUM	3.50			3.53	mg/L		0.8

HERITAGE

SAB56048

POTASSIUM ICP SW846-6010B **M126.3**
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528645 Analyst: J KRAMER Run Date: 07-Dec-07
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026093	PERKIN ELM	POTASSIUM	20			21.2	mg/L	106.0	
CDL01	Q2026081	INORGANIC	POTASSIUM	0.1			0.0742	mg/L	74.2	
BLA02	Q2025623	NA	POTASSIUM			<	0.00500	mg/L		
LCS	Q2025624	SPEX	POTASSIUM	100			106	mg/L	106.0	
SER01	Q2026088	A790897	POTASSIUM	7.01			5.42	mg/L		25.6
DUP02	Q2025625	A790897	POTASSIUM	7.01			7.07	mg/L		0.8
SPI02	Q2025626	A790897	POTASSIUM	7.01	100		130	mg/L	123.0	
CCV	Q2026068	INORGANIC	POTASSIUM	50			53.0	mg/L	106.0	
BLA01	Q2026050	NA	POTASSIUM			<	0.00500	mg/L		
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
CCV	Q2026069	INORGANIC	POTASSIUM	50			53.2	mg/L	106.4	
BLA01	Q2026051	NA	POTASSIUM			<	0.00500	mg/L		
SER01	Q2026086	A790513	POTASSIUM	57.8		CNA	53.6	mg/L		
CDL01	Q2026082	INORGANIC	POTASSIUM	0.1			0.0731	mg/L	73.1	

Q2026088 There was possible matrix interference for K
Q2026088 *as indicated by the serial dilution results.*

R528659 Analyst: J KRAMER Run Date: 09-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	POTASSIUM	20			20.6	mg/L	103.0	
BLA02	Q2025915	NA	POTASSIUM			<	0.0400	mg/L		
LCS	Q2025916	SPEX	POTASSIUM	100			102	mg/L	102.0	
SPI02	Q2025917	A791088	POTASSIUM	11.2	100		119	mg/L	107.8	
DPS02	Q2025918	A791088	POTASSIUM	11.2	100		116	mg/L	104.8	2.8
SER01	Q2026325	A790723	POTASSIUM	0.450		CNA	0.389	mg/L		
CDL01	Q2026318	INORGANIC	POTASSIUM	0.1			0.100	mg/L	100.0	
CCV	Q2026309	INORGANIC	POTASSIUM	50			51.8	mg/L	103.6	
BLA01	Q2026294	NA	POTASSIUM			<	0.0400	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026310	INORGANIC	POTASSIUM	50			53.0	mg/L	106.0	
BLA01	Q2026295	NA	POTASSIUM			<	0.0400	mg/L		
CDL01	Q2026319	INORGANIC	POTASSIUM	0.1			0.106	mg/L	106.0	

MAGNESIUM ICP SW846-6010B **M118.3**
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Analyst: P MATAKA Run Date: 07-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528645							
SPI02	Q2025626	A790897	Analytical Run: R528645							
SAMPLE	A790958	Rep: 0	Analytical Run: R528645							
DUP02	Q2025639	A790897	Analytical Run: R528659							

HERITAGE

SAB56048

LEAD TRACE ICP SW846-6010B
Prep : FIELD FILTRATION SAS

M116.0

R528659 Analyst: J KRAMER Run Date 09-Dec-07 Instrument: TRACE ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	LEAD	1			0.989	mg/L	98.9	
DPS02	Q2025918	A791088	LEAD	0	0.500		0.461	mg/L	92.2	0
SER01	Q2026325	A790723	LEAD	0		BDL		mg/L		
SPI01	Q2026313	A790723	LEAD	0	0.500		0.488	mg/L	97.6	
DPS01	Q2026321	A790723	LEAD	0	0.5		0.469	mg/L	93.8	4.0
CDL01	Q2026315	PERKIN ELM	LEAD	0.100			0.0983	mg/L	98.3	
ICS-AB	Q2026299	PERKIN ELM	LEAD	1.00			0.924	mg/L	92.4	
CCV	Q2026305	INORGANIC	LEAD	5.00			4.88	mg/L	97.6	
BLA01	Q2026290	NA	LEAD			<	0.00200	mg/L		
SAMPLE	A790958		See Certificate of Analysis, Rep: 1							
SAMPLE	A790959		See Certificate of Analysis, Rep: 1							
SAMPLE	A790960		See Certificate of Analysis, Rep: 1							
CCV	Q2026306	INORGANIC	LEAD	5.00			4.88	mg/L	97.6	
BLA01	Q2026291	NA	LEAD			<	0.00200	mg/L		
SER01	Q2026328	A791512	LEAD	0		BDL		mg/L		
DUP02	Q2025859	A791512	LEAD	0		BDL		mg/L		
SPI02	Q2025860	A791512	LEAD	0	0.5		0.473	mg/L	94.6	
CDL01	Q2026319	INORGANIC	LEAD	0.01			0.00930	mg/L	93.0	
ICS-AB	Q2026300	PERKIN ELM	LEAD	1.00			0.909	mg/L	90.9	

POTASSIUM ICP SW846-6010B
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

M126.3

R528558 Analyst: P MATAKA Run Date: 07-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528645							
DUP02	Q2025625	A790897	Analytical Run: R528645							
SPI02	Q2025626	A790897	Analytical Run: R528645							
SAMPLE	A790958	Rep: 0	Analytical Run: R528645							

R528615 Analyst: J KRAMER Run Date: 08-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run: R528659							

R528645 Analyst: J KRAMER Run Date: 07-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD

HERITAGE

SAB56048

CADMIUM ICP SW846-6010B **M108.3**

Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528645 Analyst: J KRAMER Run Date: 07-Dec-07
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026093	PERKIN ELM	CADMIUM	1			1.06	mg/L	106.0	
CDL01	Q2026083	INORGANIC	CADMIUM	10			9.97	mg/L	99.7	
ICS-AB	Q2026060	PERKIN ELM	CADMIUM	1.00			1.08	mg/L	108.0	
BLA02	Q2025623	NA	CADMIUM			<	0.00200	mg/L		
LCS	Q2025624	SPEX	CADMIUM	0.05			0.0515	mg/L	103.0	
SER01	Q2026088	A790897	CADMIUM	0		BDL		mg/L		
DUP02	Q2025625	A790897	CADMIUM	0		BDL		mg/L		
CCV	Q2026068	INORGANIC	CADMIUM	5.00			5.05	mg/L	101.0	
BLA01	Q2026050	NA	CADMIUM			<	0.00200	mg/L		
SAMPLE	A790958		See Certificate of Analysis. Rep: 0							
CCV	Q2026069	INORGANIC	CADMIUM	5.00			5.07	mg/L	101.4	
BLA01	Q2026051	NA	CADMIUM			<	0.00200	mg/L		
SER01	Q2026091	A790942	CADMIUM	97.7			96.6	mg/L		1.1
CDL01	Q2026082	INORGANIC	CADMIUM	0.0050			0.00507	mg/L	101.4	
ICS-AB	Q2026061	PERKIN ELM	CADMIUM	1.00			1.08	mg/L	108.0	

Q2026088 There was possible matrix interference for K
Q2026088 as indicated by the serial dilution results.

R528659 Analyst: J KRAMER Run Date: 09-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	CADMIUM	1			0.985	mg/L	98.5	
BLA02	Q2025915	NA	CADMIUM			<	0.000056	mg/L		
LCS	Q2025916	SPEX	CADMIUM	0.05			0.0528	mg/L	105.6	
SPI02	Q2025917	A791088	CADMIUM	0	0.050		0.0528	mg/L	105.6	
DPS02	Q2025918	A791088	CADMIUM	0	0.050		0.0511	mg/L	102.2	3.3
CDL01	Q2026315	PERKIN ELM	CADMIUM	0.010			0.00977	mg/L	97.7	
ICS-AB	Q2026299	PERKIN ELM	CADMIUM	1.00			1.03	mg/L	103.0	
SER01	Q2026328	A791512	CADMIUM	0.000182		CNA	0.000282	mg/L		
CCV	Q2026309	INORGANIC	CADMIUM	5.00			4.92	mg/L	98.4	
BLA01	Q2026294	NA	CADMIUM				0.000134	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026310	INORGANIC	CADMIUM	5.00			5.05	mg/L	101.0	
BLA01	Q2026295	NA	CADMIUM				0.000149	mg/L		
BLA02	Q2025637	NA	CADMIUM			<	0.000056	mg/L		
LCS	Q2025638	INORGANIC	CADMIUM	0.05			0.0552	mg/L	110.4	
SER01	Q2026326	A790897	CADMIUM	0		CNA	0.000416	mg/L		
SPI02	Q2025640	A790897	CADMIUM	0	0.05		0.0548	mg/L	109.6	
CDL01	Q2026319	INORGANIC	CADMIUM	0.0050			0.00483	mg/L	96.6	
ICS-AB	Q2026300	PERKIN ELM	CADMIUM	1.00			1.01	mg/L	101.0	

HERITAGE

SAB56048

BERYLLIUM ICP SW846-6010B **M105.3**
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528659 Analyst: J KRAMER Run Date: 09-Dec-07
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SPI02	Q2025917	A791088	BERYLLIUM	0	0.050		0.0526	mg/L	105.2	
DPS02	Q2025918	A791088	BERYLLIUM	0	0.050		0.0512	mg/L	102.4	2.7
CDL01	Q2026315	PERKIN ELM	BERYLLIUM	0.010			0.00967	mg/L	96.7	
ICS-AB	Q2026299	PERKIN ELM	BERYLLIUM	0.500			0.536	mg/L	107.2	
SER01	Q2026328	A791512	BERYLLIUM	0		BDL		mg/L		
CCV	Q2026309	INORGANIC	BERYLLIUM	2			2.00	mg/L	100.0	
BLA01	Q2026294	NA	BERYLLIUM			<	0.000400	mg/L		
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis, Rep: 0							
CCV	Q2026310	INORGANIC	BERYLLIUM	2			2.07	mg/L	103.5	
BLA01	Q2026295	NA	BERYLLIUM			<	0.000400	mg/L		
BLA02	Q2025637	NA	BERYLLIUM			<	0.000400	mg/L		
LCS	Q2025638	INORGANIC	BERYLLIUM	0.05			0.0538	mg/L	107.6	
SER01	Q2026326	A790897	BERYLLIUM	0		BDL		mg/L		
DUP02	Q2025639	A790897	BERYLLIUM	0		BDL		mg/L		
SPI02	Q2025640	A790897	BERYLLIUM	0	0.05		0.0536	mg/L	107.2	
CDL01	Q2026319	INORGANIC	BERYLLIUM	0.004			0.00381	mg/L	95 2	
ICS-AB	Q2026300	PERKIN ELM	BERYLLIUM	0.500			0.527	mg/L	105.4	

CADMIUM ICP SW846-6010B **M108.3**
Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Analyst: P MATAKA Run Date: 07-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528645							
DUP02	Q2025625	A790897	Analytical Run: R528645							
SAMPLE	A790958	Rep: 0	Analytical Run: R528645							
BLA02	Q2025637	NA	Analytical Run: R528659							
LCS	Q2025638	INORGANIC	Analytical Run: R528659							
SPI02	Q2025640	A790897	Analytical Run: R528659							

R528615 Analyst: J KRAMER Run Date: 08-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run. R528659							

R528645 Analyst: J KRAMER Run Date: 07-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	RQL	Observed	Units	Rec	RPD

HERITAGE

SAB56048

BERYLLIUM ICP SW846-6010B **M105.3**

Prep : FAA/ ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE SW846-3005A

R528558 Analyst: P MATAKA Run Date: 07-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025623	NA	Analytical Run: R528645							
LCS	Q2025624	SPEX	Analytical Run: R528645							
SAMPLE	A790958	Rep: 0	Analytical Run: R528645							
BLA02	Q2025637	NA	Analytical Run: R528659							
LCS	Q2025638	INORGANIC	Analytical Run: R528659							
DUP02	Q2025639	A790897	Analytical Run: R528659							
SPI02	Q2025640	A790897	Analytical Run: R528659							

R528615 Analyst: J KRAMER Run Date: 08-Dec-07 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025915	NA	Analytical Run: R528659							
LCS	Q2025916	SPEX	Analytical Run: R528659							
SPI02	Q2025917	A791088	Analytical Run: R528659							
DPS02	Q2025918	A791088	Analytical Run: R528659							
SAMPLE	A790959	Rep: 0	Analytical Run: R528659							
SAMPLE	A790960	Rep: 0	Analytical Run: R528659							

R528645 Analyst: J KRAMER Run Date. 07-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026093	PERKIN ELM	BERYLLIUM	1			1.05	mg/L	105.0	
CDL01	Q2026083	INORGANIC	BERYLLIUM	10			9.96	mg/L	99.6	
ICS-AB	Q2026060	PERKIN ELM	BERYLLIUM	0.500			0.552	mg/L	110.4	
BLA02	Q2025623	NA	BERYLLIUM			<	0.00160	mg/L		
LCS	Q2025624	SPEX	BERYLLIUM	0.05			0.0511	mg/L	102.2	
SER01	Q2026088	A790897	BERYLLIUM	0		BDL		mg/L		
CCV	Q2026068	INORGANIC	BERYLLIUM	2			1.98	mg/L	99.0	
BLA01	Q2026050	NA	BERYLLIUM			<	0 00160	mg/L		
SAMPLE	A790958		See Certificate of Analysis, Rep: 0							
CCV	Q2026069	INORGANIC	BERYLLIUM	2			1.96	mg/L	98.0	
BLA01	Q2026051	NA	BERYLLIUM			<	0.00160	mg/L		
SER01	Q2026091	A790942	BERYLLIUM	0		BDL		mg/L		
CDL01	Q2026082	INORGANIC	BERYLLIUM	0.004			0.00370	mg/L	92.5	
ICS-AB	Q2026061	PERKIN ELM	BERYLLIUM	0.500			0.522	mg/L	104.4	

Q2026088 There was possible matrix interference for K
Q2026088 as indicated by the serial dilution results.

R528659 Analyst: J KRAMER Run Date: 09-Dec-07 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2026330	PERKIN ELM	BERYLLIUM	1			0.991	mg/L	99.1	
BLA02	Q2025915	NA	BERYLLIUM			<	0.000400	mg/L		
LCS	Q2025916	SPEX	BERYLLIUM	0.05			0.0520	mg/L	104.0	

HERITAGE

SAB56048

PCB/PESTICIDE SCAN GC:ECD SW846-8081 **O305.1**
Prep : GC PESTICIDE SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

R528989 Analyst: D EISELE Run Date: 07-Dec-07
Analytical Reviewer: E WERNZ Review Date: 17-Dec-07

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SPI02	Q2025621	A790461	METHOXYCHLOR	0	25.0		24.9	ug/L	99.6	
SPI02	Q2025621	A790461	TOXAPHENE	0	25.0		24.1	ug/L	96.4	
DPS02	Q2025622	A790461	GAMMA-BHC (LINDANE)	0	2.50		2.51	ug/L	100.4	3.5
DPS02	Q2025622	A790461	HEPTACHLOR	0	2.50		2.45	ug/L	98.0	0.8
DPS02	Q2025622	A790461	ALDRIN	0	2.50		2.61	ug/L	104.4	3.8
DPS02	Q2025622	A790461	HEPTACHLOR EPOXIDE	0	2.50		2.63	ug/L	105.2	1.9
DPS02	Q2025622	A790461	DIELDRIN	0	2.50		2.46	ug/L	98.4	1.2
DPS02	Q2025622	A790461	ENDRIN	0	2.50		2.84	ug/L	113.6	1.8
DPS02	Q2025622	A790461	METHOXYCHLOR	0	25.0		25.5	ug/L	102.0	2.4
DPS02	Q2025622	A790461	TOXAPHENE	0	25.0		30.4	ug/L	121.6	23.1
SAMPLE	A790958		See Certificate of Analysis. Rep 0							
SAMPLE	A790959		See Certificate of Analysis, Rep: 0							
SAMPLE	A790960		See Certificate of Analysis. Rep 0							
CCV	Q2029132		ALPHA-BHC	20.0			18.2	ug/L	91.0	
CCV	Q2029132		GAMMA-BHC (LINDANE)	20.0			18.2	ug/L	91.0	
CCV	Q2029132		HEPTACHLOR	20.0			18.1	ug/L	90.5	
CCV	Q2029132		ENDOSULFAN I	20 0			18.6	ug/L	93.0	
CCV	Q2029132		DIELDRIN	40.0			37.4	ug/L	93.5	
CCV	Q2029132		ENDRIN	40.0			35.2	ug/L	88.0	
CCV	Q2029132		4,4'-DDD	40.0			36.8	ug/L	92.0	
CCV	Q2029132		4.4'-DDT	40.0			35.5	ug/L	88.8	
CCV	Q2029132		METHOXYCHLOR	200.0			175	ug/L	87 5	
CCV	Q2029132		DECACHLOROBIPHENYL (DCB)						81 5	

Q2029131 4,4'-DDD and Endosulfan II can not be reported due to coelution.

R529197 Analyst: T PINCKERT Run Date: 17-Dec-07 Instrument: GC/ECD
Analytical Reviewer: E WERNZ Review Date 19-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2026458		GAMMA-BHC (LINDANE)			BDL	0.25	ug/L		
BLA02	Q2026458		HEPTACHLOR			BDL	0.25	ug/L		
BLA02	Q2026458		HEPTACHLOR EPOXIDE			BDL	0.25	ug/L		
BLA02	Q2026458		ENDRIN			BDL	0.50	ug/L		
BLA02	Q2026458		METHOXYCHLOR			BDL	2.5	ug/L		
BLA02	Q2026458		TOXAPHENE			BDL	5.0	ug/L		
BLA02	Q2026458		DECACHLOROBIPHENYL (DCB)						75.6	
LCS	Q2026459	EMS	GAMMA-BHC (LINDANE)	0.50			0.337	ug/L	67.4	
LCS	Q2026459	EMS	HEPTACHLOR	0.50			0.487	ug/L	97.4	
LCS	Q2026459	EMS	ALDRIN	0.50			0.520	ug/L	104 0	
LCS	Q2026459	EMS	DIELDRIN	1.0			0.983	ug/L	98.3	
LCS	Q2026459	EMS	ENDRIN	1.0			1.02	ug/L	102.0	
LCS	Q2026459	EMS	4,4'-DDT	1.0			1.03	ug/L	103.0	

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SAB56048

PCB/PESTICIDE SCAN GC:ECD SW846-8081 **O305.1**
Prep : GC PESTICIDE SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

R528989 Analyst: D EISELE Run Date: 07-Dec-07
Analytical Reviewer: E WERNZ Review Date: 17-Dec-07 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2029131		ENDRIN ALDEHYDE	20 0			20.2	ug/L	101.0	
ICV01	Q2029131		ENDRIN KETONE	20.0			18.2	ug/L	91.0	
ICV01	Q2029131		ALPHA-CHLORDANE	20.0			19.0	ug/L	95.0	
ICV01	Q2029131		GAMMA-CHLORDANE	20.0			18.5	ug/L	92.5	
BLA02	Q2025619		ALPHA-BHC			BDL	0.011	ug/L		
BLA02	Q2025619		BETA-BHC			BDL	0.015	ug/L		
BLA02	Q2025619		DELTA-BHC			BDL	0.012	ug/L		
BLA02	Q2025619		GAMMA-BHC (LINDANE)			BDL	0.012	ug/L		
BLA02	Q2025619		HEPTACHLOR			BDL	0.024	ug/L		
BLA02	Q2025619		ALDRIN			BDL	0.035	ug/L		
BLA02	Q2025619		HEPTACHLOR EPOXIDE			BDL	0.013	ug/L		
BLA02	Q2025619		ENDOSULFAN I			BDL	0.024	ug/L		
BLA02	Q2025619		DIELDRIN			BDL	0.027	ug/L		
BLA02	Q2025619		4,4'-DDE			BDL	0.022	ug/L		
BLA02	Q2025619		ENDRIN			BDL	0.041	ug/L		
BLA02	Q2025619		ENDOSULFAN II			BDL	0.025	ug/L		
BLA02	Q2025619		4,4'-DDD			BDL	0.035	ug/L		
BLA02	Q2025619		ENDOSULFAN SULFATE			BDL	0.033	ug/L		
BLA02	Q2025619		4,4'-DDT			BDL	0.063	ug/L		
BLA02	Q2025619		METHOXYCHLOR			BDL	0.230	ug/L		
BLA02	Q2025619		ENDRIN ALDEHYDE			BDL	0.033	ug/L		
BLA02	Q2025619		ENDRIN KETONE			BDL	0.032	ug/L		
BLA02	Q2025619		ALPHA-CHLORDANE			BDL	0.019	ug/L		
BLA02	Q2025619		GAMMA-CHLORDANE			BDL	0.033	ug/L		
BLA02	Q2025619		TOXAPHENE			BDL	0.310	ug/L		
BLA02	Q2025619		PCB AROCLOR 1016			BDL	0.031	ug/L		
BLA02	Q2025619		PCB AROCLOR 1221			BDL	0.033	ug/L		
BLA02	Q2025619		PCB AROCLOR 1232			BDL	0.039	ug/L		
BLA02	Q2025619		PCB AROCLOR 1242			BDL	0.038	ug/L		
BLA02	Q2025619		PCB AROCLOR 1248			BDL	0.038	ug/L		
BLA02	Q2025619		PCB AROCLOR 1254			BDL	0.033	ug/L		
BLA02	Q2025619		PCB AROCLOR 1260			BDL	0.038	ug/L		
BLA02	Q2025619		DECACHLOROBIPHENYL (DCB)						111.6	
LCS	Q2025620		GAMMA-BHC (LINDANE)	2.5			2.49	ug/L	99.6	
LCS	Q2025620		HEPTACHLOR	2.5			2.36	ug/L	94.4	
LCS	Q2025620		ALDRIN	2.5			2.49	ug/L	99.6	
LCS	Q2025620		HEPTACHLOR EPOXIDE	2.5			2.52	ug/L	100.8	
LCS	Q2025620		DIELDRIN	2.5			2.37	ug/L	94.8	
LCS	Q2025620		ENDRIN	2.5			2.72	ug/L	108.8	
LCS	Q2025620		METHOXYCHLOR	25			24.3	ug/L	97.2	
LCS	Q2025620		TOXAPHENE	25			24.0	ug/L	96.0	
SPI02	Q2025621	A790461	GAMMA-BHC (LINDANE)	0	2.50		2 60	ug/L	104.0	
SPI02	Q2025621	A790461	HEPTACHLOR	0	2.50		2.47	ug/L	98 8	
SPI02	Q2025621	A790461	ALDRIN	0	2.50		2.71	ug/L	108.4	
SPI02	Q2025621	A790461	HEPTACHLOR EPOXIDE	0	2.50		2.58	ug/L	103.2	
SPI02	Q2025621	A790461	DIELDRIN	0	2.50		2.43	ug/L	97.2	
SPI02	Q2025621	A790461	ENDRIN	0	2.50		2.79	ug/L	111.6	

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SAB56048

PCB/PESTICIDE SCAN GC:ECD SW846-8081 **O305.1**
Prep : GC PESTICIDE SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510C

R528556 Analyst: B VANSLAVENS Run Date: 06-Dec-07 Instrument: PREP
Prep Reviewer: B WOOD Review Date: 10-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2025619		Analytical Run: R528989							
LCS	Q2025620		Analytical Run: R528989							
SPI02	Q2025621	A790461	Analytical Run: R528989							
DPS02	Q2025622	A790461	Analytical Run: R528989							
SAMPLE	A790958	Rep: 0	Analytical Run: R528989							
SAMPLE	A790959	Rep: 0	Analytical Run: R528989							
SAMPLE	A790960	Rep: 0	Analytical Run: R528989							
BLA02	Q2026458		Analytical Run: R529197							
LCS	Q2026459	EMS	Analytical Run: R529197							

R528989 Analyst: D EISELE Run Date: 07-Dec-07 Instrument: GC/ECD
Analytical Reviewer: E WERNZ Review Date: 17-Dec-07

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2029130		ALPHA-BHC	14800						24.04
CAL01	Q2029130		BETA-BHC	9620						2.66
CAL01	Q2029130		DELTA-BHC	13200						22.18
CAL01	Q2029130		GAMMA-BHC (LINDANE)	16100						18.72
CAL01	Q2029130		HEPTACHLOR	21900						1.81
CAL01	Q2029130		ALDRIN	17000						8.30
CAL01	Q2029130		HEPTACHLOR EPOXIDE	18800						2.04
CAL01	Q2029130		ENDOSULFAN I	18300						2.49
CAL01	Q2029130		DIELDRIN	16900						8.15
CAL01	Q2029130		4,4'-DDE	13700						9.41
CAL01	Q2029130		ENDRIN	15500						7.46
CAL01	Q2029130		ENDOSULFAN II	15000						2.47
CAL01	Q2029130		4,4'-DDD	9620						12.44
CAL01	Q2029130		ENDOSULFAN SULFATE	12100						0.85
CAL01	Q2029130		4,4'-DDT	9840						13.86
CAL01	Q2029130		METHOXYCHLOR	6400						6.85
CAL01	Q2029130		ENDRIN ALDEHYDE	6140						4.88
CAL01	Q2029130		ENDRIN KETONE	11800						7.23
CAL01	Q2029130		ALPHA-CHLORDANE	19500						2.03
CAL01	Q2029130		GAMMA-CHLORDANE	19600						1.27
ICV01	Q2029131		ALPHA-BHC	20.0			17.8	ug/L	89.0	
ICV01	Q2029131		BETA-BHC	20.0			20.0	ug/L	100.0	
ICV01	Q2029131		DELTA-BHC	20.0			17.2	ug/L	86.0	
ICV01	Q2029131		GAMMA-BHC (LINDANE)	20.0			18.0	ug/L	90.0	
ICV01	Q2029131		HEPTACHLOR	20.0			18.9	ug/L	94.5	
ICV01	Q2029131		ALDRIN	20.0			19.3	ug/L	96.5	
ICV01	Q2029131		HEPTACHLOR EPOXIDE	20.0			19.0	ug/L	95.0	
ICV01	Q2029131		ENDOSULFAN I	20.0			18.6	ug/L	93.0	
ICV01	Q2029131		DIELDRIN	20.0			17.2	ug/L	86.0	
ICV01	Q2029131		4,4'-DDE	20.0			19.1	ug/L	95.5	
ICV01	Q2029131		ENDRIN	20.0			16.6	ug/L	83.0	
ICV01	Q2029131		ENDOSULFAN SULFATE	20.0			18.9	ug/L	94.5	
ICV01	Q2029131		4,4'-DDT	20.0			16.7	ug/L	83.5	
ICV01	Q2029131		METHOXYCHLOR	20.0			19.8	ug/L	99.0	

HERITAGE

Quality Assurance Report

SAB56048

02-JAN-08

Service Location

Heritage Environmental Services, LLC
Commercial Laboratory Operations
7901 West Morris Street
Indianapolis, IN 46231
(317) 243-8304

Submitter

RICHARD H. WATKIN SR.
LOUISVILLE AND JEFFERSON COUNTY MSD
3050 COMMERCE CENTER PLACE
LOUISVILLE, KY 40211

Sample ID	Client ID	Date/Time Sampled	Date Received	Date Complete
A790958	MW-04-31.....	04-Dec-07 10:05	04-Dec-07	26-Dec-07
	WELL NUMBER :	GROUNDWATER		
	LOCATION :	LEES LANE - ANNUAL EVENT		
A790959	MW-04-31 DUPLICATE..	04-Dec-07 10:05	04-Dec-07	26-Dec-07
	WELL NUMBER :	GROUNDWATER		
	LOCATION :	LEES LANE - ANNUAL EVENT		
A790960	MW-05-31.....	04-Dec-07 11:35	04-Dec-07	26-Dec-07
	WELL NUMBER :	GROUNDWATER		
	LOCATION :	LEES LANE - ANNUAL EVENT		

01023682

HERITAGE ENVIRONMENTAL SERVICES, LLC.

COMMERCIAL LABORATORY OPERATIONS

7901 West Morris Street Indianapolis IN 46231

www.heritage-enviro.com (800)827-4374 Fax: (317) 486-5095

I - 49566

Customer name/number: MSD

Submitter #

Project Name: Lees Lane / Resample Project #33

Z Quote No: (Given to you by your contact)

PO No. or Project/Activity ID:

PRINT HERITAGE TSR NAME:

CUSTOMER STATUS: New / Existing

If no previous credit has been established with Heritage, **prepayment** (check,VISA,etc) is required at the time of sample submittal to the laboratory.

Sampled By: Dm, SS

Analyses Requested (Note special detection limits or methods)

Send Report To:

Co: Lou / Jeff Co MSD

Add: Louisville KY 40201

Attn: ~~Dan Summers~~ pm

Phone: (502) ~~540-6720~~ pm

Fax: ( )

E-mail:

Sample Turn Around Time

Standard: ____ Rush Date ___/___/___ Mo Day Yr

(Accelerated TAT subject to Additional Charge)
(Date must be Accepted and Approved by Lab)

Date Sampled	Time sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Swipe, Other	Number of Containers	PCB / Pest	Semivol	Metals	Cyanide	VOC	Filter Lead	Chrome Hex			Remarks:	Lab use only Sample No.
12/4/07	10:05 AM/PM		✓	mw-04-31		12	✓	✓	✓	✓	✓	✓	✓				A790958
12/4/07	10:05 AM/PM		✓	mw-04-31 Duplicate		12	✓	✓	✓	✓	✓	✓	✓				959
12/4/07	11:35 AM/PM		✓	mw-05-31		12	✓	✓	✓	✓	✓	✓	✓				960
12/4/07	10:05 AM/PM		✓	Lees Lane-31 TP		2					✓						✓
	AM/PM																
	AM/PM																
	AM/PM																
	AM/PM																
	AM/PM																
	AM/PM																

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Stephanie Sutton	12/4/07 12:15 pm	[signature] 12-4-07
Relinquished by: (Signature)	Date/Time	Received by: (Signature) [signature]
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Received for Lab by: (Signature) [signature]	Date 12.4.07 Time 1620	Temp. 3.7 °C ROI: ~~Yes~~ / No

Laboratory use only	Yes	No
Custody seals present/intact?	✓	
Broken containers?		✓
COC agree with sample labels?	✓	
Correct containers for testing?	✓	
Headspace issues acceptable?	✓	
Holding time(s) acceptable?	✓	
Preservative pH's acceptable?	✓	
Was pH left unadjusted?	✓	

Comments:

Send Report TO:

Rick Watkins Sr.
office # 502-540-6828
cell # 502-552-4232

56048

ORIGINAL