

GOVERNOR KIM REYNOLDS LT. GOVERNOR ADAM GREGG

DIRECTOR KAYLA LYON

IA Lab #397

Expires: 4/1/2026

Fax: 515-725-8202

February 27, 2024

Michael Schueller, Environmental Health, Associate Director State Hygienic Laboratory - Ankeny 2220 South Ankeny Blvd. Ankeny, IA 50023

**RE: Laboratory Certification** 

Dear Michael Schueller:

The Iowa Department of Natural Resources grants Laboratory Certification to State Hygienic Laboratory - Ankeny in accordance with 567 Iowa Administrative Code Chapter 83. This letter of certification lists the programs, analytes and methods for which the laboratory is certified. Changes from the prior certification are listed on a separate page before the current analyte/method lists. This letter supersedes all prior letters of certification. A certificate is included for display purposes, but does not confer certification.

The certification document, audit worksheets, and any other enclosures should be self-explanatory. Please review them carefully and share them with your laboratory colleagues and management team. Notify the department in writing within 15 days if there are errors or changes that need to be made to the certification. Please note subrule 83.6(3) requires notification to the department of major changes at the laboratory within 15 days of occurrence. Major changes include changes in essential personnel, missed or failed PT samples, changes in physical facility, failure of key equipment or in the case of reciprocal certification, changes in resident state status.

Please contact me at 515.725.0343 or kathy.lee@dnr.iowa.gov if you have any questions. Please use your laboratory ID in all correspondence. Thank you for your attention and prompt review of the certification document.

Sincerely,

Laboratory Certification Authority
Environmental Services Division

Phone: 515-725-8200

#### **Certification Summary**

**Certification Type:** Renewal **Programs:** Drinking Water, Nonpotable Water, Solid

Effective: April 01, 2024 Waste/Contaminated Sites (Water),

April 01, 2026 Municipal Sludge (503b), Solid

Lab Type: Public Waste/Contaminated Sites (Soil & Sludge)

**Regulatory Status:** Certified **Applicable To:** Laboratory

(NPDES # N/A | PWS # N/A)

Corrective Action Due Dates (see corresponding section of Evaluation Report)

No Corrective Actions at this time.

#### **Iowa DNR Environmental Compliance Reporting Requirements:**

**All Laboratories** - Laboratories that provide analyses for outside clients must include the minimum report elements listed at subrule 567 IAC 83.6(6). Programs with additional requirements are described below.

**Drinking Water** - Laboratories must be familiar with all of the reporting requirements described in subrule 567 IAC 83.6(6). Analytical results must be reported to and received by the department by the **seventh day** of the month following the month in which the samples were analyzed.

In addition to the monthly reporting of the analytical results, results of positive routine coliform bacteria samples, and all repeat and follow-up samples, must be reported within **24 hours** of the completion of each sample's analysis. Results of any contaminant which exceeds public drinking water standards (maximum contaminant level, treatment technique, action level, or health advisory), and any subsequent confirmation samples must be reported within **24 hours** of the completion of each sample's analysis. [subsection 567 IAC 83.6(6)"a"(1)4(4)].

24-hour notifications must be emailed to <u>lab.fax@dnr.iowa.gov</u>. <u>Instructions</u> for properly completing the email are located on the Labcert website. For results outside of routine business hours, the results also must be reported to the department's Environmental Emergency Reporting Hotline number at (515)725-8694.

Nonpotable Water - Laboratories must maintain records of monitoring activities and results described in Subrule 567 IAC 63.2(2).

**Underground Storage Tanks** - Rule 567 IAC 5.16(455B) describes the analytical methods for determination of petroleum contamination in soil and water, and the elements required on an analytical report.

Solid Waste/Contaminated Sites - There are no specific reporting requirements for these programs.

lowa DNR Rules may be viewed or downloaded from the lowa Legislature website for your information and use.

#### **Comments From Certification Authority:**

Pursuant to Subrule 567 IAC 83.6(5), this certification, if expired, shall remain in effect provided State Hygienic Laboratory - Ankeny has submitted a timely and complete application, until certification is renewed or revoked by the Laboratory Certification Authority.

The lowa DNR contracts with the State Hygienic Laboratory (SHL) at the University of lowa to provide technical assistance and auditing services for the lowa DNR Laboratory Certification Program. SHL auditors have attended the EPA certification course and evaluate laboratories according to the rules and standards listed in 567 IAC Chapter 83, the manuals for certification of lowa laboratories, the federal register and guidance from EPA. SHL is lowa's Environmental and Public Health Laboratory and serves as the state primacy laboratory under the Safe Drinking Water Act.

The evaluation report is organized by chemical group and microbiology. Each section lists deviations/deficiencies recommendations, comments, and any required corrective actions. Corrective actions must be completed within a specified period of time, which is noted in the evaluation report and on the certification status page. Some recommendations are good laboratory practices which should be implemented whenever possible. Comments are observations specific to the audited laboratory. An audit worksheet is completed for each chemical group and microbiology, and is included with the certification package.

#### **AUDIT EVALUATION CONDUCTED BY:**

Karen Owens
Microbiology Auditor
State Hygienic Laboratory - Coralville
2490 Crosspark Road
Coralville, IA 52241-4721
319-335-4500
karen-owens@uiowa.edu
Audit: 02/27/2024 Microbiology

Jeff Wasson Lead Auditor State Hygienic Laboratory - Coralville 2490 Crosspark Road Coralville, IA 52241-4721 319-335-4299 jeffrey-wasson@uiowa.edu Audit: 12/20/2023 Chemistry

#### LABORATORY STAFF PRESENT FOR AUDIT EVALUATION:

First Name	Last Name	Role	Title	Edu.	Yrs.	Status
	Schueller	Lab Manager	Environmental Health, Associate Director	-	-	-
<b>▼</b> Rebecca	Blair	QA Officer	Quality System Manager	-	-	-
☐ Steve	Bernholtz	Analyst/Staff	Environmental Lab Specialist	BS	36	Critical Staff
	Coleman	Analyst/Staff	Lab Tech III	BS	29	Critical Staff
	Banford	Analyst/Staff	Environmental Analyst	BS	9	Essential Staff
☐ James	Luzier	Analyst/Staff	Environmental Supervisor	MA	29	Essential Staff
☐ Elizabeth	Oberhoffer	Analyst/Staff	Environmental Specialist	BS	9	Essential Staff
☐ Kyle	Read	Analyst/Staff	Environmental Lab Analyst	BS	5	Essential Staff
	Dicken	Analyst/Staff	Environmental Lab Analyst	BS	7	Essential Staff
☐ Angela	Goetzinger	Analyst/Staff	Environmental Lab Analyst	BS	8	Essential Staff
□ Dawn	Jones	Analyst/Staff	Environmental Lab Analyst	BS	22	Essential Staff
☐ Patricia	Rose	Analyst/Staff	Clinical Lab Technical Specialist	BS	35	Essential Staff
☐ Andrea	Berg	Analyst/Staff	Laboratory Technician III	HS	32	Essential Staff
☐ Hannah	Lyons	Analyst/Staff	Environmental Lab Analyst	MA	17	Essential Staff
_ Kevin State Hygienic La	Jackson boratory-Anker	ny-397	Environmental Lab Analyst Page 1	BS	00	2/27/2024

First Name Last Name Role Title Edu. Yrs. Status

Comments:

#### REQUIREMENTS - RECOMMENDATIONS - COMMENTS

#### 1.0 GENERAL

This laboratory has pursued lowa Laboratory Certification pursuant to 567 lowa Administrative Code Chapter 83 – Laboratory Certification. The purpose of a certification program is to ensure that environmental analytical compliance data generated for the lowa DNR are scientifically valid and defensible, and are of known and acceptable precision and accuracy.

The laboratory is required to prepare a written quality assurance plan and standard operating procedures which are available for review by all staff employed at the laboratory. Quality assurance plans and standard operating procedures must be reviewed annually, and updated if necessary. The annual review of the plans and procedures must be documented.

The laboratory is required to perform and accumulate quality control data as required by federal and state regulations, procedure manuals and standard operating procedures. Laboratories are required to maintain adequate facilities, possess the appropriate instruments, equipment, and staff to conduct analyses for the programs in which it is certified.

The laboratory must maintain training records for all of its employees. The records must contain documentation that demonstrate each employee has been trained in the quality assurance plan, standard operating procedures, analytical methodology, instrument operation, quality control procedures and other relevant subjects for which the employee is responsible.

The laboratory is required to complete one acceptable proficiency test in a 12-month period for each analyte/method pair it is certified for in each program area it is certified. Results of the proficiency tests must be sent directly from the proficiency test provider to the DNR in electronic format.

2.0	MICROBIOLOGY
2.1	DEVIATIONS/DEFICIENCIES
2.2	RECOMMENDATIONS
2.3	COMMENTS
2.4	REQUIRED CORRECTIVE ACTION(S)
3.0	BASIC WASTEWATER   Not Applicable
3.1	DEVIATIONS/DEFICIENCIES

### **REQUIREMENTS – RECOMMENDATIONS - COMMENTS**

2.2	REQUIREMENTS - RECOMMENDATIONS - COMMENTS
3.2	RECOMMENDATIONS
3.3	COMMENTS
3.4	REQUIRED CORRECTIVE ACTION(S)
4.0	INORGANIC CHEMISTRY ☐ Not Applicable
4.1	DEVIATIONS/DEFICIENCIES
4.2	RECOMMENDATIONS
4.3	COMMENTS
4.4	REQUIRED CORRECTIVE ACTION(S)
5.0	ORGANIC CHEMISTRY ☐ Not Applicable
5.1	DEVIATIONS/DEFICIENCIES
5.2	RECOMMENDATIONS
5.3	COMMENTS
5.4	REQUIRED CORRECTIVE ACTION(S)
6.0	WETT □ Not Applicable
6.1	DEVIATIONS/DEFICIENCIES
6.2	RECOMMENDATIONS
6.3	COMMENTS
6.4	REQUIRED CORRECTIVE ACTION(S)
7.0	CONCLUSIONS
	It is recommended this laboratory be certified to analyze environmental samples and report the results for the parameters listed in the attached letter of certification issued by the lowa Department of Natural Resources, Environmental Services Division. This certification is contingent upon continued satisfactory performance of annual proficiency testing samples and future evaluations. Items indicated as deficiencies must be corrected. Questions or concerns should be addressed to the appraisal officer(s).



#### **CHANGES FROM PRIOR CERTIFICATE**

DAG

Analyte Name TNI Analyte Code Method Name TNI Method Code SDWIS Code Regulatory Status



#### **APPROVED PARAMETER LIST 2 - METHOD NAME**

Effective: 04/01/2024

State Hygienic Laboratory - Ankeny IA LAB #397

Method Name	TNI Method Code	Analyte Name	TNI Analyte Code	SDWIS Code	SDWA Code	Regulatory Status
Program: Drinking Water						
EPA 200.7	10013806	Aluminum	1000	200.7	1002	С
		Barium	1015	200.7	1010	С
		Calcium	1035	200.7	1919	С
		Chromium (Total)	1040	200.7	1020	C
		Copper	1055	200.7	1022	C
		Iron	1070	200.7	1028	C
		Magnesium	1085	200.7	1031	С
		Manganese	1090	200.7	1032	С
		Nickel	1105	200.7	1036	С
		Potassium	1125	200.7	1042	С
		Sodium	1155	200.7	1052	С
		Zinc	1190	200.7	1095	С
EPA 200.8	10014605	Aluminum	1000	200.8	1002	C
		Antimony	1005	200.8	1074	С
		Arsenic	1010	200.8	1005	С
		Barium	1015	200.8	1010	С
		Beryllium	1020	200.8	1075	С
		Cadmium	1030	200.8	1015	С
		Chromium (Total)	1040	200.8	1020	С
		Combined Uranium	1184	200.8	4006	С
		Copper	1055	200.8	1022	C
		Lead	1075	200.8	1030	С
		Manganese	1090	200.8	1032	С
		Mercury	1095	200.8	1035	С
		Molybdenum	1100	200.8	1084	С
		Nickel	1105	200.8	1036	С
		Selenium	1140	200.8	1045	С
		Silver	1150	200.8	1050	C
		Thallium	1165	200.8	1085	C
		Zinc	1190	200.8	1095	С
EPA 245.2	10271406	Mercury	1095	245.2	1035	С
EPA 300.0	10053200	Bromide	1540	300.0	1004	С
		Chlorate	1570	300.0	1007	С
		Chloride	1575	300.0	1017	С
		Chlorite	1595	300.0	1009	C
		Fluoride	1730	300.0	1025	C
		Nitrate as N	1810	300.0	1040	С
		Nitrite as N	1840	300.0	1041	C
		Sulfate	2000	300.0	1055	С
EPA 300.1	10275602	Bromate	1535	300.1	1011	C
		Bromide	1540	300.1	1004	С
		Chlorate	1570	300.1	1007	C
		Chlorite	1595	300.1	1009	С
EPA 350.1	10063602	Ammonia as N	1515	350.1	1003	С
EPA 365.1	10070005	Orthophosphate as P	1870	365.1	1044	С
SM 2130 B	20042619	Turbidity	2055	2130B	0100	С
	20042631	Turbidity	2055	2130B	0100	С
SM 2320 B	20045436	Total alkalinity	1505	2320B	1927	С
SM 2340 B-2011	20046611	Total hardness as CaCO3	1755	2340B	1915	С
SM 2340 C-2011	20047614	Total hardness as CaCO3	1755	2340C	1915	С
SM 2510 B-2011	20048617	Conductivity	1610	2510B	1064	C
	200.0017		•	• •		-

Method Name	TNI Method Code	Analyte Name	TNI Analyte Code	SDWIS Code	SDWA Code	Regulatory Status
SM 2540 C	20050457	TDS - Residue, filterable	1955	2540C	1930	С
SM 4500-H+ B	20105037	pH+	1900	4500H-B	1925	С
SM 4500-NO2 <sup>-</sup> B	20112838	Nitrite as N	1840	4500NO2-B	1041	С
SM 4500-SiO2 C	20128432	Silica as SiO2	1990	4500SIO2-C	1049	С
SM 5310 B	20137637	Dissolved Organic Carbon (DOC	) 1710	5310B	2919	С
		Total Organic Carbon (TOC)	2040	5310B	2920	С
SM 9215 B	20179833	HPC	2555	9215B	3001	С
SM 9223 B (Colilert Quanti-Tray)-2004	20211614	Total Coliform	2500	9223B-QT	3100	С
SM 9223 B (Colilert)	20212413	E. coli	2525	9223B-PA	3014	С
	20214442	E. coli	2525	9223B-PA	3014	C
		Total Coliform	2500	9223B-PA	3100	С
SM 9223 B (Colilert-18)	20214419	E. coli	2525	9223B-18PA	3014	C
	20214431	E. coli	2525	9223B-18PA	3014	C
	20214419	Total Coliform	2500	9223B-18PA	3100	C
	20214431		2500	9223B-18PA	3100	С
USGS I-3765-85	40011209	TSS - Residue, nonfilterable	1960	I-3765-85	1056	С
Program: Nonpotable Water						
EPA 160.4	10010409	Residue-volatile	1970	NA	NA	С
EPA 200.7	10013806	Aluminum	1000	NA	NA	C
		Barium	1015	NA	NA	С
		Beryllium	1020	NA	NA	С
		Boron	1025	NA	NA	C
		Cadmium	1030	NA	NA	C
		Calcium	1035	NA	NA	C
		Chromium (Total)	1040	NA	NA	C
		Cobalt	1050	NA	NA	С
		Copper	1055	NA	NA	C
		Iron	1070	NA	NA	C
		Lead	1075	NA	NA	C
		Magnesium	1085	NA	NA	С
		Manganese	1090	NA	NA	С
		Molybdenum	1100	NA	NA	С
		Nickel	1105	NA	NA	С
		Potassium	1125	NA	NA	С
		Sodium	1155	NA	NA	C
		Tin	1175	NA	NA	С
		Titanium	1180	NA	NA	С
		Vanadium	1185	NA	NA	С
FDA 200.0	10014605	Zinc	1190	NA	NA	С
EPA 200.8	10014605	Aluminum	1000	NA	NA	C
		Antimony Arsenic	1005 1010	NA NA	NA NA	C C
		Barium	1015	NA	NA	C
		Beryllium	1013	NA	NA	C
		Cadmium	1030	NA	NA	C
		Cobalt	1050	NA	NA	C
		Copper	1055	NA	NA	C
		Iron	1070	NA	NA	C
		Lead	1075	NA	NA	C
		Manganese	1090	NA	NA	C
		Molybdenum	1100	NA	NA	C
		Nickel	1105	NA	NA	C
		Selenium	1140	NA	NA	C
		Silver	1150	NA	NA	C
		Thallium	1165	NA	NA	C
		Tin	1175	NA	NA	C
		Titanium	1180	NA	NA	C
		Total Chromium	1600	NA	NA	С

Method Name	TNI Method Code	Analyte Name	TNI Analyte Code	SDWIS Code	SDWA Code	Regulatory Status
		Vanadium	1185	NA	NA	С
EPA 2000.0 - Fathead minnow, 48-hr Acute, nonrenewal, MHSF		Zinc	1190	NA	NA	С
25deg C	10264809	Pimephales promelas	3410	NA	NA	С
EPA 2002.0 - Ceriodaphnia Acute Toxicity	10214581	Ceriodaphnia dubia	3315	NA	NA	С
EPA 245.2	10037204	Mercury	1095	NA	NA	C
EPA 300.0	10053200	Bromide	1540	NA	NA	С
		Chloride	1575	NA	NA	С
		Fluoride	1730	NA	NA	С
		Nitrate as N	1810	NA	NA	С
		Nitrite as N	1840	NA	NA	С
		Sulfate	2000	NA	NA	С
EPA 350.1	10063602	Ammonia as N	1515	NA	NA	С
EPA 351.2	10065404	Total Kjeldahl Nitrogen (TKN)	1795	NA	NA	С
EPA 353.2	10067604	Nitrate as N plus Nitrite as N	1820	NA	NA	С
EPA 365.1	10070005	Orthophosphate as P	1870	NA	NA	С
EPA 365.4	10071202	Total Phosphorus	1910	NA	NA	С
SM 2130 B-2011	20048220	Turbidity	2055	NA	NA	С
SM 2320 B-2011	20045618	Total alkalinity	1505	NA	NA	С
SM 2340 B-2011	20046611	Total hardness as CaCO3	1755	NA	NA	С
SM 2340 C-2011	20047614	Total hardness as CaCO3	1755	NA	NA	С
SM 2510 B-2011	20048617	Conductivity	1610	NA	NA	С
SM 2540 B-2015	20049438	Residue, total (TS)	1950	NA	NA	С
SM 2540 C-2015	20050435	TDS - Residue, filterable	1955	NA	NA	С
SM 2540 F-2015	20052226	Residue-settleable	1965	NA	NA	С
SM 4500-Cl G-2011	20081623	Total Residual Chlorine	1940	NA	NA	С
SM 4500-H+ B-2011	20105220	pH+	1900	NA	NA	С
SM 4500-NO2 <sup>-</sup> B-2011	20113115	Nitrite as N	1840	NA	NA	С
SM 4500-S2 <sup>-</sup> F-2011	20126663	Sulfide	2005	NA	NA	С
SM 4500-SiO2 C-2011	20128614	Silica as SiO2	1990	NA	NA	С
SM 5210 B-2016	20135039	Biochemical Oxygen Demand (BOD)	1530	NA	NA	С
		Carbonaceous BOD (CBOD)	1555	NA	NA	С
SM 5220 D-2011	20136816	Chemical Oxygen Demand (COD	) 1565	NA	NA	С
SM 5310 B-2014	20137831	Total Organic Carbon (TOC)	2040	NA	NA	С
SM 9222 D-2015	20210020	Fecal coliforms	2530	NA	NA	С
SM 9223 B (Colilert Quanti-Tray)-2016	20211647	E. coli	2525	NA	NA	С
SM 9223 B (Colilert-18 Quanti-Tray)-2016	20213632	E. coli	2525	NA	NA	С
USGS I-3765-85	40011209	TSS - Residue, nonfilterable	1960	NA	NA	С
Program: Municipal Sludge (503b)						
EPA 6010D	10155950	Cadmium	1030	NA	NA	С
217.00102	10133330	Copper	1055	NA	NA	C
		Lead	1075	NA	NA	C
		Molybdenum	1100	NA	NA	C
		Nickel	1105	NA	NA	C
		Zinc	1190	NA	NA	C
EPA 6020B	10156420	Arsenic	1010	NA	NA	C
2177 00200	10130120	Cadmium	1030	NA	NA	C
		Copper	1055	NA	NA	С
		Lead	1075	NA	NA	C
		Mercury	1095	NA	NA	C
		Nickel	1105	NA	NA	C
		Selenium	1140	NA	NA	C
		Zinc	1190	NA	NA	C
EPA 7471B	10166457	Mercury	1095	NA	NA	С
	10100737	•				
SM 2540 G-2015	20005281	Residue, total (TS)	1950	NA	NA	C

FPA 1172	Method Name	TNI Method Code	Analyte Name	TNI Analyte Code	SDWIS Code	SDWA Code	Regulatory Status
EPA 300.0   1008.320.0   Chlorida   1573   NA   NA   NA   NA   Na   Na   Na   Na	EPA 1311	10118806	TCLP	1466	NA	NA	С
Fluoride   Fluoride   1730   NA   NA   NA   Na   Na   Na   Na   Na	EPA 1312	10119003	SPLP	1460	NA	NA	С
Nitrate as N   1810   NA   NA   NA   NA   Na   Na   Na   Na	EPA 300.0	10053200	Chloride	1575	NA	NA	С
Nichieu as N   1840   NA   NA   NA   NA   NA   NA   NA   N			Fluoride	1730	NA	NA	С
Sufface   200   NA			Nitrate as N	1810	NA	NA	С
EPA 350.1			Nitrite as N	1840	NA	NA	С
EPA 512			Sulfate	2000	NA	NA	С
EPA 6010D	EPA 350.1	10063602	Ammonia as N	1515	NA	NA	С
Barium   1015	EPA 351.2	10065404	Total Kjeldahl Nitrogen (TKN)	1795	NA	NA	С
	EPA 6010D	10155950	Aluminum	1000	NA	NA	С
Baron   1025			Barium	1015	NA	NA	С
Cadmium   1030			Beryllium	1020	NA	NA	С
Calcium			Boron	1025	NA	NA	С
Cabalt			Cadmium	1030	NA	NA	С
Copper			Calcium	1035	NA	NA	С
Iron			Cobalt	1050	NA	NA	С
Lead			Copper	1055	NA	NA	С
Lithium			Iron	1070	NA	NA	С
Magnesium			Lead	1075	NA	NA	С
Manganese   1090			Lithium	1080	NA	NA	С
Molybdenum   1100			Magnesium	1085	NA	NA	C
Nickel   1105   NA   NA   NA   Potassium   1125   NA   NA   NA   NA   NA   NA   NA   N			Manganese	1090	NA	NA	С
Potassium   1125   NA			Molybdenum	1100	NA	NA	С
Sodium			Nickel	1105	NA	NA	С
Strontium			Potassium	1125	NA	NA	C
Tin			Sodium	1155	NA	NA	С
Titanium			Strontium	1160	NA	NA	С
Total Chromium   1600   NA			Tin	1175	NA	NA	C
Vanadium   1185   NA   NA   NA   NA   Zinc   1190   NA   NA   NA   NA   NA   NA   NA   N			Titanium	1180	NA	NA	С
			Total Chromium	1600	NA	NA	С
EPA 6020B       10156420       Aluminum       1000       NA       NA         Antimony       1005       NA       NA         Arsenic       1010       NA       NA         Barium       1015       NA       NA         Beryllium       1020       NA       NA         Cadmium       1030       NA       NA         Cobalt       1050       NA       NA         Lead       1075       NA       NA         Manganese       1090       NA       NA         Mercury       1095       NA       NA         Molybdenum       1100       NA       NA         Nickel       1105       NA       NA         Silver       1150       NA       NA         Silver       1150       NA       NA         Thallium       1160       NA       NA         Total Chromium       1160       NA       NA <td></td> <td></td> <td>Vanadium</td> <td>1185</td> <td>NA</td> <td>NA</td> <td>С</td>			Vanadium	1185	NA	NA	С
Antimony   1005   NA   NA   NA			Zinc	1190	NA	NA	С
Arsenic   1010	EPA 6020B	10156420	Aluminum	1000	NA	NA	С
Barium   1015   NA   NA     Beryllium   1020   NA   NA     Cadmium   1030   NA   NA     Cobalt   1050   NA   NA     Copper   1055   NA   NA     Copper   1055   NA   NA     Iron   1070   NA   NA     Iron   1075   NA   NA     Lead   1075   NA   NA     Manganese   1090   NA   NA     Mercury   1095   NA   NA     Mercury   1095   NA   NA     Nickel   1105   NA   NA     Nickel   1105   NA   NA     Selenium   1140   NA   NA     Silver   1150   NA   NA     Silver   1150   NA   NA     Strontium   1160   NA   NA     Thallium   1165   NA   NA     Thallium   1165   NA   NA     Total Chromium   1060   NA   NA     Total Chromium   1185   NA   NA			Antimony	1005	NA	NA	С
Beryllium   1020   NA   NA   NA			Arsenic	1010	NA	NA	С
Cadmium			Barium	1015	NA	NA	С
Cobalt			Beryllium	1020	NA	NA	C
Copper   1055   NA			Cadmium	1030	NA	NA	C
Iron			Cobalt	1050	NA	NA	С
Lead   1075   NA   NA   NA   Manganese   1090   NA   NA   NA   Mercury   1095   NA   NA   NA   Molybdenum   1100   NA   NA   NA   Na   Na   Na   Na   Na			Copper	1055	NA	NA	С
Manganese   1090   NA   NA   NA   Mercury   1095   NA   NA   NA   Mercury   1095   NA   NA   NA   NA   Molybdenum   1100   NA   NA   NA   NA   NA   NA   NA			Iron	1070	NA	NA	С
Mercury 1095 NA NA NA			Lead	1075	NA	NA	С
Molybdenum   1100   NA   NA   NA   Nickel   1105   NA   NA   NA   Na   Na   Na   Na   Na			Manganese	1090	NA		С
Nickel   1105   NA   NA   NA   Selenium   1140   NA   NA   NA   NA   NA   Silver   1150   NA   NA   NA   NA   NA   NA   NA   N			Mercury	1095	NA	NA	С
Selenium   1140   NA   NA   NA   Silver   1150   NA   NA   NA   NA   Strontium   1160   NA   NA   NA   NA   NA   NA   NA   N			Molybdenum	1100	NA	NA	С
Silver   1150   NA   NA   NA   Strontium   1160   NA   NA   NA   NA   NA   NA   NA   N			Nickel	1105	NA	NA	С
Strontium   1160   NA   NA   NA   Thallium   1165   NA   NA   NA   NA   Tin   1175   NA   NA   NA   NA   NA   NA   NA   N				1140	NA	NA	С
Thallium			Silver	1150	NA	NA	С
Tin   1175   NA   NA   NA				1160	NA	NA	С
Total Chromium			Thallium	1165	NA		С
EPA 7470A         10165807         Mercury         1095         NA         NA           EPA 7471B         10198455         Mercury         1095         NA         NA           EPA 9045D (soil)         10198455         pH+         1900         NA         NA				1175	NA	NA	C
EPA 7470A         10165807         Mercury         1095         NA         NA           EPA 7471B         10166457         Mercury         1095         NA         NA           EPA 9045D (soil)         10198455         pH+         1900         NA         NA			Total Chromium	1600	NA	NA	С
EPA 7470A       10165807       Mercury       1095       NA       NA         EPA 7471B       10166457       Mercury       1095       NA       NA         EPA 9045D (soil)       10198455       pH+       1900       NA       NA			Vanadium	1185	NA	NA	С
EPA 7471B         10166457         Mercury         1095         NA         NA           EPA 9045D (soil)         10198455         pH+         1900         NA         NA			Zinc	1190	NA	NA	С
EPA 9045D (soil) 10198455 pH+ 1900 NA NA	EPA 7470A	10165807	Mercury	1095	NA	NA	С
EPA 9045D (soil) 10198455 pH+ 1900 NA NA	EPA 7471B	10166457	Mercury	1095	NA	NA	С
							С
SM 2540 G-2011 20005270 Residue, total (TS) 1950 NA NA	SM 2540 G-2011	20005270	Residue, total (TS)	1950	NA	NA	С

Method Name	TNI Method Code	Analyte Name	TNI Analyte Code	SDWIS Code	SDWA Code	Regulatory Status
		Residue-volatile	1970	NA	NA	С
Program: Solid Waste/Contaminated Sites (Soil & Sludge)						
EPA 1311	10118806	TCLP	1466	NA	NA	С
EPA 1312	10119003	SPLP	1460	NA	NA	С
EPA 300.0	10053200	Chloride	1575	NA	NA	С
		Fluoride	1730	NA	NA	С
		Nitrate as N	1810	NA	NA	С
		Nitrite as N	1840	NA	NA	С
		Sulfate	2000	NA	NA	С
EPA 350.1	10063602	Ammonia as N	1515	NA	NA	С
EPA 351.2	10065404	Total Kjeldahl Nitrogen (TKN)	1795	NA	NA	С
EPA 6010D	10155950	Aluminum	1000	NA	NA	С
		Barium	1015	NA	NA	С
		Beryllium	1020	NA	NA	С
		Boron	1025	NA	NA	С
		Cadmium	1030	NA	NA	С
		Calcium	1035	NA	NA	С
		Cobalt	1050	NA	NA	С
		Copper	1055	NA	NA	С
		Iron	1070	NA	NA	С
		Lead	1075	NA	NA	С
		Lithium	1080	NA	NA	С
		Magnesium	1085	NA	NA	С
		Manganese	1090	NA	NA	С
		Molybdenum	1100	NA	NA	С
		Nickel	1105	NA	NA	С
		Potassium	1125	NA	NA	С
		Sodium	1155	NA	NA	С
		Strontium	1160	NA	NA	С
		Tin	1175	NA	NA	С
		Titanium	1180	NA	NA	С
		Total Chromium	1600	NA	NA	С
		Vanadium	1185	NA	NA	С
		Zinc	1190	NA	NA	С
EPA 6020B	10156420	Aluminum	1000	NA	NA	С
		Antimony	1005	NA	NA	С
		Arsenic	1010	NA	NA	С
		Barium	1015	NA	NA	C
		Beryllium	1020	NA	NA	С
		Cadmium	1030	NA	NA	С
		Cobalt	1050	NA	NA	C
		Copper	1055	NA	NA	С
		Iron	1070	NA	NA	С
		Lead	1075	NA	NA	С
		Manganese	1090	NA	NA	С
		Mercury	1095	NA	NA	С
		Molybdenum	1100	NA	NA	С
		Nickel	1105	NA	NA	С
		Selenium	1140	NA	NA	С
		Silver	1150	NA	NA	C
		Strontium	1160	NA	NA	С
		Thallium	1165	NA	NA	С
		Tin	1175	NA	NA	C
		Total Chromium	1600	NA	NA	С
		Vanadium	1185	NA	NA	C
		Zinc	1190	NA	NA	С
EPA 7471B	10166457	Mercury	1095	NA	NA	С
EPA 9045D (soil)	10198455	pH+	1900	NA	NA	С

Method Name	TNI Method Code	Analyte Name	TNI Analyte Code	SDWIS Code	SDWA Code	Regulatory Status
SM 2540 G-2011	20005270	Residue, total (TS)	1950	NA	NA	С
		Residue-volatile	1970	NA	NA	С

## **IOWA DEPARTMENT OF NATURAL RESOURCES**

# State Hygienic Laboratory - Ankeny IA LAB #397

The above-named laboratory has complied with 567 lowa Administrative Code Chapter 83 and is certified to analyze samples in the programs listed below. Please refer to the accompanying letter of certification for the official list of individual certified analytes & methods. This certificate does not convey certification without the accompanying letter of certification.

~ DW ~ NPW ~ SW/CS (Water) ~ MS ~ SW/CS (Soil & Sludge)

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On behalf of the director

**EFFECTIVE: 4/1/2024** 

Kathleen A. Lee

**EXPIRES: 4/1/2026** 

27 February 2024

**Certification Authority** 

Leading Iowans in Caring for Our Natural Resources