

**Certified Parameters for
ALS Environmental - Fort Collins
225 Commerce Drive, Fort Collins, CO**

**Issued by
North Dakota Department of Environmental Quality
Division of Chemistry
December 29, 2020**

Certification Period: December 1, 2020 through November 30, 2021

Lab Certification No: R-057

Based on Certificate No: CO010992020-27

From the State of Utah Department of Health

Program	Parameter	Method	Source #	Status
Clean Water Act	Alkalinity	2320 B-2011	107	Certified
	Cyanide (Total)	4500-CN ⁻ E-2011	107	Certified
	Fluoride	4500-F- C-2011	107	Certified
	Sulfide	4500-S ²⁻ F-2011	107	Certified
	Oil and Grease	EPA 1664A	72	Certified
	Aluminum	EPA 200.7	2	Certified
	Antimony	EPA 200.7	2	Certified
	Arsenic	EPA 200.7	2	Certified
	Barium	EPA 200.7	2	Certified
	Beryllium	EPA 200.7	2	Certified
	Boron	EPA 200.7	2	Certified
	Cadmium	EPA 200.7	2	Certified
	Calcium	EPA 200.7	2	Certified
	Chromium (Total)	EPA 200.7	2	Certified
	Cobalt	EPA 200.7	2	Certified
	Copper	EPA 200.7	2	Certified
	Iron	EPA 200.7	2	Certified
	Lead	EPA 200.7	2	Certified
	Magnesium	EPA 200.7	2	Certified
	Manganese	EPA 200.7	2	Certified
	Molybdenum	EPA 200.7	2	Certified
	Nickel	EPA 200.7	2	Certified
	Potassium	EPA 200.7	2	Certified
	Selenium	EPA 200.7	2	Certified
	Silica	EPA 200.7	2	Certified
	Silver	EPA 200.7	2	Certified
	Sodium	EPA 200.7	2	Certified
	Thallium	EPA 200.7	2	Certified
	Tin	EPA 200.7	2	Certified
	Vanadium	EPA 200.7	2	Certified
	Zinc	EPA 200.7	2	Certified
Aluminum	EPA 200.8	2	Certified	

Program
Clean Water Act

Parameter	Method	Source #	Status
Antimony	EPA 200.8	2	Certified
Arsenic	EPA 200.8	2	Certified
Cadmium	EPA 200.8	2	Certified
Calcium	EPA 200.8	2	Certified
Copper	EPA 200.8	2	Certified
Lead	EPA 200.8	2	Certified
Magnesium	EPA 200.8	2	Certified
Molybdenum	EPA 200.8	2	Certified
Potassium	EPA 200.8	2	Certified
Selenium	EPA 200.8	2	Certified
Silver	EPA 200.8	2	Certified
Sodium	EPA 200.8	2	Certified
Thallium	EPA 200.8	2	Certified
Vanadium	EPA 200.8	2	Certified
Mercury	EPA 245.1	2	Certified
Bromide	EPA 300.0	9	Certified
Fluoride	EPA 300.0	9	Certified
Nitrate as N	EPA 300.0	9	Certified
Nitrite as N	EPA 300.0	9	Certified
Sulfate	EPA 300.0	9	Certified
Ammonia as N	EPA 350.1	9	Certified
Nitrate + Nitrite as N	EPA 353.2	9	Certified
2,4-D	EPA 615	92	Certified
2,4-DB	EPA 615	92	Certified
Dichloroprop	EPA 615	92	Certified
MCPA	EPA 615	92	Certified
MCPP	EPA 615	92	Certified
Alpha-Total, pCi per liter	EPA 900.0	15	Certified
Beta-Total, pCi per liter	EPA 900.0	15	Certified
Radium Total pCi per liter	EPA 903.0	15	Certified

Resource Conservation and Recovery Act

Ignitability	SW846 1010A	85	Certified
Toxicity Characteristic Leaching Procedure (TCLP)	SW846 1311	81	Certified
Synthetic Precipitation Leaching Procedure (SPLP)	SW846 1312	82	Certified
Aluminum	SW846 6010D	126	Certified
Antimony	SW846 6010D	126	Certified
Arsenic	SW846 6010D	126	Certified
Barium	SW846 6010D	126	Certified
Beryllium	SW846 6010D	126	Certified
Boron	SW846 6010D	126	Certified
Cadmium	SW846 6010D	126	Certified
Calcium	SW846 6010D	126	Certified
Chromium	SW846 6010D	126	Certified
Cobalt	SW846 6010D	126	Certified
Copper	SW846 6010D	126	Certified
Iron	SW846 6010D	126	Certified
Lead	SW846 6010D	126	Certified
Lithium	SW846 6010D	126	Certified

Program	Parameter	Method	Source #	Status
Resource Conservation and Recovery Act	Magnesium	SW846 6010D	126	Certified
	Manganese	SW846 6010D	126	Certified
	Molybdenum	SW846 6010D	126	Certified
	Nickel	SW846 6010D	126	Certified
	Potassium	SW846 6010D	126	Certified
	Selenium	SW846 6010D	126	Certified
	Silica	SW846 6010D	126	Certified
	Silver	SW846 6010D	126	Certified
	Sodium	SW846 6010D	126	Certified
	Strontium	SW846 6010D	126	Certified
	Thallium	SW846 6010D	126	Certified
	Tin	SW846 6010D	126	Certified
	Titanium	SW846 6010D	126	Certified
	Vanadium	SW846 6010D	126	Certified
	Zinc	SW846 6010D	126	Certified
	Aluminum	SW846 6020B	126	Certified
	Antimony	SW846 6020B	126	Certified
	Arsenic	SW846 6020B	126	Certified
	Cadmium	SW846 6020B	126	Certified
	Calcium	SW846 6020B	126	Certified
	Copper	SW846 6020B	126	Certified
	Lead	SW846 6020B	126	Certified
	Magnesium	SW846 6020B	126	Certified
	Molybdenum	SW846 6020B	126	Certified
	Potassium	SW846 6020B	126	Certified
	Selenium	SW846 6020B	126	Certified
	Silver	SW846 6020B	126	Certified
	Thallium	SW846 6020B	126	Certified
	Uranium	SW846 6020B	126	Certified
	Vanadium	SW846 6020B	126	Certified
	Chromium (Hexavalent)	SW846 7196A	81	Certified
	** Mercury	SW846 7471B	96	Certified
	4,4'-DDD	SW846 8081A	84	Certified
	4,4'-DDE	SW846 8081A	84	Certified
	4,4'-DDT	SW846 8081A	84	Certified
	Aldrin	SW846 8081A	84	Certified
	alpha-BHC	SW846 8081A	84	Certified
	alpha-chlordane (cis-chlordane)	SW846 8081A	84	Certified
	beta-BHC	SW846 8081A	84	Certified
	Chlordane (Technical)	SW846 8081A	84	Certified
	delta-BHC	SW846 8081A	84	Certified
	Dieldrin	SW846 8081A	84	Certified
	Endosulfan I	SW846 8081A	84	Certified
	Endosulfan II	SW846 8081A	84	Certified
	Endosulfan Sulfate	SW846 8081A	84	Certified
	Endrin	SW846 8081A	84	Certified
	Endrin Aldehyde	SW846 8081A	84	Certified
Endrin Ketone	SW846 8081A	84	Certified	
gamma-BHC (Lindane)	SW846 8081A	84	Certified	

Program	Parameter	Method	Source #	Status
Resource Conservation and Recovery Act	gamma-chlordane (trans-chlordane)	SW846 8081A	84	Certified
	Heptachlor	SW846 8081A	84	Certified
	Heptachlor Epoxide	SW846 8081A	84	Certified
	Methoxychlor	SW846 8081A	84	Certified
	Toxaphene	SW846 8081A	84	Certified
	Aroclor 1016	SW846 8082	84	Certified
	Aroclor 1221	SW846 8082	84	Certified
	Aroclor 1232	SW846 8082	84	Certified
	Aroclor 1242	SW846 8082	84	Certified
	Aroclor 1248	SW846 8082	84	Certified
	Aroclor 1254	SW846 8082	84	Certified
	Aroclor 1260	SW846 8082	84	Certified
	2,4,5-T	SW846 8151A	84	Certified
	2,4,5-TP (Silvex)	SW846 8151A	84	Certified
	2,4-D	SW846 8151A	84	Certified
	2,4-DB	SW846 8151A	84	Certified
	Dalapon	SW846 8151A	84	Certified
	Dicamba	SW846 8151A	84	Certified
	Dichloroprop	SW846 8151A	84	Certified
	MCPA	SW846 8151A	84	Certified
	MCPP	SW846 8151A	84	Certified
	1,1,1,2-Tetrachloroethane	SW846 8260C	101	Certified
	1,1,1-Trichloroethane	SW846 8260C	101	Certified
	1,1,2,2-Tetrachloroethane	SW846 8260C	101	Certified
	1,1,2-Trichloroethane	SW846 8260C	101	Certified
	1,1-Dichloroethane	SW846 8260C	101	Certified
	1,1-Dichloroethene	SW846 8260C	101	Certified
	1,2,3-Trichloropropane	SW846 8260C	101	Certified
	1,2-Dibromo-3-Chloropropane (DBCP)	SW846 8260C	101	Certified
	1,2-Dibromoethane (Ethylene Dibromide)	SW846 8260C	101	Certified
	1,2-Dichlorobenzene	SW846 8260C	101	Certified
	1,2-Dichloroethane	SW846 8260C	101	Certified
	1,2-Dichloropropane	SW846 8260C	101	Certified
	1,3-Dichlorobenzene	SW846 8260C	101	Certified
	1,4-Dichlorobenzene	SW846 8260C	101	Certified
	2-butanone	SW846 8260C	101	Certified
	2-Chloroethyl vinyl ether	SW846 8260C	101	Certified
	2-hexanone	SW846 8260C	101	Certified
	4-methyl 2-pentanone (MIBK)	SW846 8260C	101	Certified
	* Acetone (2-Propanone)	SW846 8260C	101	Certified
	Acetonitrile	SW846 8260C	101	Certified
	Acrolein	SW846 8260C	101	Certified
	Acrylonitrile	SW846 8260C	101	Certified
	Benzene	SW846 8260C	101	Certified
	Bromochloromethane	SW846 8260C	101	Certified
	Bromodichloromethane	SW846 8260C	101	Certified
	Bromoform	SW846 8260C	101	Certified
	Bromomethane (Methyl bromide)	SW846 8260C	101	Certified
	Carbon Disulfide	SW846 8260C	101	Certified

Program	Parameter	Method	Source #	Status
Resource Conservation and Recovery Act	Carbon Tetrachloride	SW846 8260C	101	Certified
	Chlorobenzene	SW846 8260C	101	Certified
	Chlorodibromomethane	SW846 8260C	101	Certified
	Chloroethane	SW846 8260C	101	Certified
	Chloroform	SW846 8260C	101	Certified
	Chloromethane (Methyl Chloride)	SW846 8260C	101	Certified
	cis-1,3-Dichloropropene	SW846 8260C	101	Certified
	Dibromomethane	SW846 8260C	101	Certified
	Dichlorodifluoromethane (Freon 12)	SW846 8260C	101	Certified
	Ethylbenzene	SW846 8260C	101	Certified
	Hexachlorobutadiene (1,3-Hexachlorobutadiene)	SW846 8260C	101	Certified
	Iodomethane (Methyl iodide)	SW846 8260C	101	Certified
	Isopropylbenzene	SW846 8260C	101	Certified
	Methyl tert butyl ether	SW846 8260C	101	Certified
	m-Xylene	SW846 8260C	101	Certified
	Naphthalene	SW846 8260C	101	Certified
	o-xylene	SW846 8260C	101	Certified
	p-Xylene	SW846 8260C	101	Certified
	Styrene	SW846 8260C	101	Certified
	Tetrachloroethene	SW846 8260C	101	Certified
	Toluene	SW846 8260C	101	Certified
	trans-1,2-Dichloroethene	SW846 8260C	101	Certified
	trans-1,3-Dichloropropene	SW846 8260C	101	Certified
	Trichloroethene (Trichloroethylene)	SW846 8260C	101	Certified
	Trichlorofluoromethane	SW846 8260C	101	Certified
	Vinyl Acetate	SW846 8260C	101	Certified
	Vinyl chloride (chloroethene)	SW846 8260C	101	Certified
*	1,2,4-Trichlorobenzene	SW846 8270D	96	Certified
	1,2-Dichlorobenzene	SW846 8270D	96	Certified
	1,3-Dichlorobenzene	SW846 8270D	96	Certified
	1,4-Dichlorobenzene	SW846 8270D	96	Certified
	2,3,4,6-Tetrachlorophenol	SW846 8270D	96	Certified
	2,4,5-Trichlorophenol	SW846 8270D	96	Certified
	2,4,6-Trichlorophenol	SW846 8270D	96	Certified
	2,4-Dichlorophenol	SW846 8270D	96	Certified
	2,4-Dimethylphenol	SW846 8270D	96	Certified
	2,4-Dinitrophenol	SW846 8270D	96	Certified
	2,4-Dinitrotoluene	SW846 8270D	96	Certified
	2,6-Dinitrotoluene	SW846 8270D	96	Certified
	2-Chloronaphthalene	SW846 8270D	96	Certified
	2-Methyl-4,6-dinitrophenol	SW846 8270D	96	Certified
	2-Methylnaphthalene	SW846 8270D	96	Certified
	2-Methylphenol (o-Cresol)	SW846 8270D	96	Certified
	2-Nitroaniline	SW846 8270D	96	Certified
	2-Nitrophenol	SW846 8270D	96	Certified
	3,3'-Dichlorobenzidine	SW846 8270D	96	Certified
	3-Methylphenol	SW846 8270D	96	Certified
	3-Nitroaniline	SW846 8270D	96	Certified
	4-Bromophenyl Phenyl Ether	SW846 8270D	96	Certified

<i>Program</i>	<i>Parameter</i>	<i>Method</i>	<i>Source #</i>	<i>Status</i>
<i>Resource Conservation and Recovery Act</i>	4-Chloro-3-methylphenol	SW846 8270D	96	Certified
	4-Chloroaniline	SW846 8270D	96	Certified
	4-Chlorophenyl Phenyl Ether	SW846 8270D	96	Certified
	4-Nitroaniline	SW846 8270D	96	Certified
	4-Nitrophenol	SW846 8270D	96	Certified
	Acenaphthene	SW846 8270D	96	Certified
	Acenaphthylene	SW846 8270D	96	Certified
	Aniline	SW846 8270D	96	Certified
	Anthracene	SW846 8270D	96	Certified
	Benzo(a)anthracene	SW846 8270D	96	Certified
	Benzo(a)pyrene	SW846 8270D	96	Certified
	Benzo(g,h,i)perylene	SW846 8270D	96	Certified
	Benzo(k)fluoranthene	SW846 8270D	96	Certified
	Benzo[b]fluoranthene	SW846 8270D	96	Certified
	Benzoic Acid	SW846 8270D	96	Certified
	Benzyl Alcohol	SW846 8270D	96	Certified
	bis(2-chloroethoxy)methane	SW846 8270D	96	Certified
	bis(2-Chloroethyl)ether	SW846 8270D	96	Certified
	bis(2-Ethylhexyl)phthalate (Di(2-ethylhexyl)phthalate)	SW846 8270D	96	Certified
	Butyl benzyl phthalate	SW846 8270D	96	Certified
	Chrysene	SW846 8270D	96	Certified
	Dibenz(a,h)anthracene	SW846 8270D	96	Certified
	Dibenzofuran	SW846 8270D	96	Certified
	Diethyl phthalate	SW846 8270D	96	Certified
	Dimethyl phthalate	SW846 8270D	96	Certified
	* Di-n-butyl phthalate	SW846 8270D	96	Certified
	Di-n-octyl phthalate	SW846 8270D	96	Certified
	Fluoranthene	SW846 8270D	96	Certified
	Fluorene	SW846 8270D	96	Certified
	Hexachlorobenzene	SW846 8270D	96	Certified
	Hexachlorobutadiene (1,3-Hexachlorobutadiene)	SW846 8270D	96	Certified
	Hexachlorocyclopentadiene	SW846 8270D	96	Certified
	Hexachloroethane	SW846 8270D	96	Certified
	Indeno(1,2,3-cd)pyrene	SW846 8270D	96	Certified
	Isophorone	SW846 8270D	96	Certified
	Naphthalene	SW846 8270D	96	Certified
	Nitrobenzene	SW846 8270D	96	Certified
	n-Nitrosodimethylamine	SW846 8270D	96	Certified
	n-nitroso-di-n-propylamine	SW846 8270D	96	Certified
	n-Nitrosodiphenylamine	SW846 8270D	96	Certified
	Pentachlorophenol	SW846 8270D	96	Certified
	Phenanthrene	SW846 8270D	96	Certified
	Phenol	SW846 8270D	96	Certified
	Pyrene	SW846 8270D	96	Certified
	Cyanide	SW846 9014	84	Certified
	Bromide	SW846 9056A	96	Certified
	Chloride	SW846 9056A	96	Certified
	Fluoride	SW846 9056A	96	Certified
	Nitrate as N	SW846 9056A	96	Certified

Program	Parameter	Method	Source #	Status
Resource Conservation and Recovery Act				
	Nitrite as N	SW846 9056A	96	Certified
	Orthophosphate as P	SW846 9056A	96	Certified
	Sulfate	SW846 9056A	96	Certified
**	Oil and Grease	SW846 9071B	86	Certified
*	Fluoride	SW846 9214	84	Certified
	Gross Alpha and Gross Beta	SW846 9310	69	Certified
	Alpha Emitting Radium Isotopes	SW846 9315	69	Certified
	Radium 228	SW846 9320	69	Certified
Safe Drinking Water Act				
	Aluminum	EPA 200.7	2	Certified
	Barium	EPA 200.7	2	Certified
	Beryllium	EPA 200.7	2	Certified
	Cadmium	EPA 200.7	2	Certified
	Chromium	EPA 200.7	2	Certified
	Copper	EPA 200.7	2	Certified
	Iron	EPA 200.7	2	Certified
	Manganese	EPA 200.7	2	Certified
	Silver	EPA 200.7	2	Certified
	Zinc	EPA 200.7	2	Certified
	Aluminum	EPA 200.8	2	Certified
	Antimony	EPA 200.8	2	Certified
	Arsenic	EPA 200.8	2	Certified
	Cadmium	EPA 200.8	2	Certified
	Copper	EPA 200.8	2	Certified
	Lead	EPA 200.8	2	Certified
	Selenium	EPA 200.8	2	Certified
	Silver	EPA 200.8	2	Certified
	Thallium	EPA 200.8	2	Certified
	Uranium	EPA 200.8	2	Certified
	Mercury	EPA 245.1	2	Certified
	Gross Alpha	EPA 900.0	15	Certified
	Gross Beta	EPA 900.0	15	Certified
	Gamma Emitting Radionuclides	EPA 901.1	15	Certified
	Radium 226	EPA 903.0	15	Certified
	Radium 226	EPA 903.1	15	Certified
	Radium 228	EPA 904.0	15	Certified
	Tritium	EPA 906.0	15	Certified

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY RECOGNITION OF CERTIFICATION OR ACCREDITATION

The North Dakota Department of Environmental Quality recognizes the certification or accreditation of

ALS Environmental - Fort Collins - 225 Commerce Drive - Fort Collins, CO

by

State of Utah Department of Health

for

All Clean Water Act, Resource Conservation and Recovery Act, Safe Drinking Water Act
chemical parameters by the methods on the accompanying list of certified parameters for this laboratory

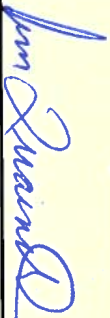
Certification Number: R-057

Date of Issue: December 29, 2020

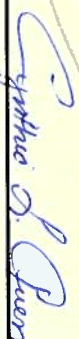
Expiration Date: November 30, 2021

Covers: 12/1/2020 - 11/30/2021

This certificate remains the property of the North Dakota Department of Environmental Quality and may be recalled, for cause, at any time, by the Department. Recognition of an out-of-state laboratory's certification or accreditation from another state certification or accreditation program by the North Dakota Department of Environmental Quality is neither an endorsement of the results reported by the laboratory nor a guarantee of the validity or accuracy of the results reported by the laboratory.



Director, Division of Chemistry



Certification Officer

<i>Program</i>	<i>Parameter</i>	<i>Method</i>	<i>Source # Status</i>
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Symbol Reference

- * Limited to RCRA Water Samples Only
- ** Limited to RCRA Solid Samples Only

Source Reference

- 2 "Methods for the Determination of Metals in Environmental Samples - Supplement I", EPA/600/R-94/111, May 1994
- 9 "Methods for the Determination of Inorganic Substances in Environmental Samples", EPA/600/R-93-100, August 1993
- 15 "Prescribed Procedures for the Measurement of Radioactivity in Drinking Water", EPA 600/4-80-032, August 1980
- 69 Test Methods for Evaluating Solid Waste Physical Chemical Methods (SW846) Third Edition, EPA-SW-846-03-03B, EPA Office of Solid Waste and Emergency Response
- 72 USEPA Office of Water, EPA-821-R-98-002, PB99-121949, February 1999
- 81 Test Methods for Evaluating Solid Waste Physical Chemical Methods (SW846) Third Edition, as amended by Update I, July 1992, EPA Office of Solid Waste and Emergency Response
- 82 Test Methods for Evaluating Solid Waste Physical Chemical Methods (SW846) Third Edition, as amended by Update II, September 1994, EPA Office of Solid Waste and Emergency Response
- 84 Test Methods for Evaluating Solid Waste Physical Chemical Methods (SW846) Third Edition, as amended by Update III, December 1996, EPA Office of Solid Waste and Emergency Response
- 85 Test Methods for Evaluating Solid Waste Physical Chemical Methods (SW846) Third Edition, as amended by Final Update IIIB, November 2004, EPA Office of Solid Waste and Emergency Response
- 86 SW846 Method 9071B, n-Hexane Extractable Material (HEM) for Sludge, Sediment and Solid Samples (Revision 2, April 1998)
- 92 Methods for the Determination of Nonconventional Pesticides in Municipal and Industrial Wastewater - Volume I - EPA-821-R-93-010-A August 1993, Revision 1
- 96 Test Methods for Evaluating Solid Waste Physical Chemical Methods (SW846) Third Edition, as amended by Final Update IV, February 2007, EPA Office of Solid Waste and Emergency Response
- 101 www.epa.gov/sw-846 (SW-846 On-Line: New Methods)
- 107 Standard Methods for the Examination of Water and Wastewater, 22nd Edition, American Public Health Association
- 126 Test Methods for Evaluating Solid Waste Physical Chemical Methods (SW846) Third Edition, as amended by Final Update V, August 2015, EPA Office of Solid Waste and Emergency Response