

# TRI DISTRICT/SOLDIER CANYON FILTER PLANT

(East Larimer County Water District; Fort Collins/Loveland Water District; North Weld County Water District)

## WATER QUALITY REPORT

**2ND QUARTER 2014**

ANALYSIS PARAMETER <small>Monitored at SCFP (not a certified lab)</small>	Report	PLANT INFLUENT			PLANT EFFLUENT			MCL
	Values	MIN	MAX	AVG	MIN	MAX	AVG	*SMCL
ALKALINITY	mg/l	12	35	24.2	28	44	34.0	N/A
ALUMINUM	mg/l	N/A	N/A	N/A	0.019	0.052	0.034	*0.05 - 0.2
CALCIUM HARDNESS	mg/l	10	31	21.4	18	28	23.3	N/A
CHLORINE	mg/l	N/A	N/A	N/A	0.77	0.93	0.86	4.0
CHLORITE	mg/l	N/A	N/A	N/A	0.18	0.34	0.25	1.0
CHLORINE DIOXIDE	mg/l	N/A	N/A	N/A	0.0	0.04	0.0	0.8
CONDUCTIVITY	uS/cm	32.9	80.1	64.8	92.4	102.7	98.2	N/A
DISSOLVED OXYGEN	mg/l	8.1	11.9	9.6	N/A	N/A	N/A	N/A
FLUORIDE	mg/l	0.17	0.35	0.18	0.54	0.84	0.69	4.0/*2.0
HARDNESS (TOTAL)	mg/l	16	36	27.8	27	34	31.0	N/A
IRON	mg/l	0.03	0.21	0.10	0.0	0.01	0.01	*0.3
LANGLIER INDEX	S.I.#	-1.53	-2.68	-2.00	-1.13	-1.63	-1.40	N/A
MANGANESE	mg/l	0.003	0.046	0.023	0	0.011	0.005	*0.05
pH	VALUE	7.07	7.92	7.55	7.73	8.09	7.91	N/A
TEMPERATURE	°C	4.6	13.1	7.8	4.7	9.6	7.4	N/A
TOTAL DISSOLVED SOLIDS	mg/l	15.8	40.1	32.6	45.3	51.9	49.2	*500
TRUE COLOR	APHA	1.0	61.0	24.5	0.0	5.0	1.0	*15.0
TURBIDITY	NTU	1.43	39.0	4.56	0.023	0.051	0.034	**<0.3 TT

INORGANIC CONTAMINANTS ANALYSES (AL) - (ENTRY INTO THE DISTRIBUTION SYSTEM)			RESULTS	DATE	MCL
ANTIMONY	mg/l		BDL	6/18/2014	0.006
ARSENIC	mg/l		BDL	6/18/2014	0.010
BARIUM	mg/l		0.016	6/18/2014	2.000
BERYLLIUM	mg/l		BDL	6/18/2014	0.004
CADMIUM	mg/l		BDL	6/18/2014	0.005
CHROMIUM	mg/l		BDL	6/18/2014	0.1
CYANIDE	mg/l		NT	6/18/2014	0.2
FLUORIDE	mg/l		0.66	6/18/2014	4.0
MERCURY	mg/l		BDL	6/18/2014	0.002
NICKEL	mg/l		BDL	6/18/2014	*SMCL
SELENIUM	mg/l		BDL	6/18/2014	0.050
SODIUM	mg/l		10.6	6/18/2014	*SMCL
THALLIUM	mg/l		BDL	6/18/2014	0.002

NITRATE AND/OR NITRITE AS NITROGEN (AL) (UL) - (ENTER INTO DISTRIBUTION SYSTEM)			RESULTS	DATE	MCL
NITRATE	mg/l		0.079	6/18/2014	10.000
NITRITE	mg/l		<0.01	2/12/2013	1.000

TOTAL ORGANIC CARBON (AL) - (PLANT INFLUENT AND EFFLUENT)			INFLUENT	EFFLUENT	TT RATIO	DATE	MCL - **TT
TOTAL ORGANIC CARBON - TOC	mg/L		3.6	2	1.27	4/15/2014	RAA - ≥1.0
			3.6	2	1.27	5/6/2014	RAA - ≥1.0
			4.3	2.3	1.03	6/11/2014	RAA - ≥1.0
			INFLUENT			DATE	MCL
ALKALINITY - (PLANT INFLUENT ONLY)	mg/l		32			4/15/2014	N/A
			31.9			5/6/2014	N/A
			29.3			6/11/2014	N/A

**RADIONUCLIDE ANALYSES (UL) - (ENTRY INTO THE DISTRIBUTION SYSTEM)**

			RESULTS	DATE	MCL
GROSS ALPHA	pCi/L		1.7	8/24/2011	15
URANIUM	ppb		0.01	8/24/2011	30
RADIUM 226 + 228	pCi/L		0.76	8/24/2011	5
GROSS BETA	pCi/L		2.1	8/24/2011	50

**ORGANIC CHEMICAL ANALYSES - VOC's (AL) - (ENTRY INTO THE DISTRIBUTION SYSTEM)**

			RESULTS	DATE	MCL
1,1-DICHLOROETHYLENE	µg/L		BDL	6/18/2014	7
1,1,1-TRICHLOROETHANE	µg/L		BDL	6/18/2014	200
1,1,2-TRICHLOROETHANE	µg/L		BDL	6/18/2014	5
1,2-DICHLOROETHANE	µg/L		BDL	6/18/2014	5
1,2-DICHLOROPROPANE	µg/L		BDL	6/18/2014	5
1,2,4-TRICHLOROBENZENE	µg/L		BDL	6/18/2014	70
BENZENE	µg/L		BDL	6/18/2014	5
CARBON TETRACHLORIDE	µg/L		BDL	6/18/2014	5
cis-1,2-DICHLOROETHYLENE	µg/L		BDL	6/18/2014	70
DICHLOROMETHANE	µg/L		BDL	6/18/2014	5
ETHYLBENZENE	µg/L		BDL	6/18/2014	700
CHLOROBENZENE	µg/L		BDL	6/18/2014	100
o-DICHLOROBENZENE	µg/L		BDL	6/18/2014	600
para-DICHLOROBENZENE	µg/L		BDL	6/18/2014	75
STYRENE	µg/L		BDL	6/18/2014	100
TETRACHLOROETHYLENE	µg/L		BDL	6/18/2014	5
TOLUENE	µg/L		BDL	6/18/2014	1000
trans-1,2-DICHLOROETHYLENE	µg/L		BDL	6/18/2014	100
TRICHLOROETHYLENE	µg/L		BDL	6/18/2014	5
VINYL CHLORIDE	µg/L		BDL	6/18/2014	2
XYLENES (total)	µg/L		BDL	6/18/2014	1000

**ORGANIC CHEMICAL ANALYSES - SOC's (UL) (AL) - (ENTRY INTO THE DISTRIBUTION SYSTEM)**

					RESULTS	DATE	MCL
1,2-DIBROMO-3-CHLOROPROPANE	µg/L		ND	10/25/2011	BDL	6/18/2014	0.2
2,4-D	µg/L		ND	10/25/2011	BDL	6/18/2014	70
2,4,5-TP	µg/L		ND	10/25/2011	BDL	6/18/2014	50
ALACHLOR (LASSO)	µg/L		ND	10/25/2011	BDL	6/18/2014	2
ALDICARB	µg/L		ND	10/25/2011	BDL	6/19/2014	N/A
ALDICARB SULFONE	µg/L		ND	10/25/2011	BDL	6/20/2014	N/A
ALDICARB SULFOXIDE	µg/L		ND	10/25/2011	BDL	6/21/2014	N/A
ATRAZINE	µg/L		ND	10/25/2011	BDL	6/18/2014	3
BENZO(a)PYRENE	µg/L		ND	10/25/2011	BDL	6/18/2014	0.2
CARBOFURAN	µg/L		ND	10/25/2011	BDL	6/18/2014	40
CHLORDANE	µg/L		ND	10/25/2011	BDL	6/18/2014	2
DALAPON	µg/L		ND	10/25/2011	BDL	6/18/2014	200
DINOSEB	µg/L		ND	10/25/2011	BDL	6/18/2014	7
DIQUAT	µg/L		ND	10/25/2011	BDL	6/18/2014	20
DI(2-ethylhexyl)ADIPATE	µg/L		ND	10/25/2011	BDL	6/18/2014	400
DI(2-ethylhexyl)PHTHALATE	µg/L		ND	10/25/2011	BDL	6/18/2014	6
ENDOTHALL	µg/L		ND	10/25/2011	BDL	6/18/2014	100
ENDRIN	µg/L		ND	10/25/2011	BDL	6/18/2014	2
ETHYLENE DIBROMIDE	µg/L		ND	10/25/2011	BDL	6/18/2014	0.05
HEPTACHLOR	µg/L		ND	10/25/2011	BDL	6/18/2014	0.4
HEPTACHLOR EPOXIDE	µg/L		ND	10/25/2011	BDL	6/18/2014	0.2
HEXACHLOROBENZENE	µg/L		ND	10/25/2011	BDL	6/18/2014	1

**ORGANIC CHEMICAL ANALYSES - SOC's (UL) (AL) (con't) - (ENTRY INTO THE DISTRIBUTION SYSTEM)**

						RESULTS	DATE	MCL
HEXACHLOROCYCLOPENTADIENE	µg/L		ND	10/25/2011		BDL	6/18/2014	50
LINDANE/BHC-GAMMA	µg/L		ND	10/25/2011		BDL	6/18/2014	0.2
METHOXYCHLOR	µg/L		ND	10/25/2011		BDL	6/18/2014	40
OXAMYL	µg/L		ND	10/25/2011		BDL	6/18/2014	200
PENTACHLOROPHENOL	µg/L		ND	10/25/2011		BDL	6/18/2014	1
PICLORAM	µg/L		ND	10/25/2011		BDL	6/18/2014	500
POLYCHLORINATED BIPHENYLS	µg/L		ND	10/25/2011		BDL	6/18/2014	0.5
SIMAZINE	µg/L		ND	10/25/2011		BDL	6/18/2014	4
TOXAPHENE	µg/L		ND	10/25/2011		BDL	6/18/2014	3

**CHLORITE (AL) - (FROM DISTRIBUTION SYSTEM)**

			MIN	MAX	AVG	DATE	MCL
CHLORITE	mg/L		0.32	0.35	0.33	4/15/2014	1.0

**TOTAL COLIFORMS (SE/WCL) - (FROM DISTRIBUTION SYSTEM)**

	TOTAL SAMPLES	# POSITIVE	# NEGATIVE	DATE	MCL
EAST LARIMER COUNTY WATER DISTRICT	20	0	20	Apr-14	>1 POSITIVE
EAST LARIMER COUNTY WATER DISTRICT	20	0	20	May-14	>1 POSITIVE
EAST LARIMER COUNTY WATER DISTRICT	20	0	20	Jun-14	>1 POSITIVE
FORTCOLLINS/LOVELAND WATER DISTRICT	44	0	44	Apr-14	>2 POSITIVE
FORTCOLLINS/LOVELAND WATER DISTRICT	44	0	44	May-14	>2 POSITIVE
FORTCOLLINS/LOVELAND WATER DISTRICT	44	0	44	Jun-14	>2 POSITIVE
NORTH WELD COUNTY WATER DISTRICT	10	0	10	Apr-14	>1 POSITIVE
NORTH WELD COUNTY WATER DISTRICT	10	0	10	May-14	>1 POSITIVE
NORTH WELD COUNTY WATER DISTRICT	10	0	10	Jun-14	>1 POSITIVE

**TTHM AND HAA (AL) - (FROM DISTRIBUTION SYSTEM)**

		TTHM RESULTS	MCL (LRAA)	HAA RESULTS	MCL (LRAA)	DATE
<b>EAST LARIMER COUNTY WATER DISTRICT</b>						
SAMPLE SITE - DBP001-ELCSM4	µg/L	33.2	80	19.6	60	1 QTR LRAA
SAMPLE SITE - DBP002-ELCSM6	µg/L	42.8	80	23.8	60	1 QTR LRAA
SAMPLE SITE - DBP003-ELCSM2	µg/L	33.2	80	23	60	1 QTR LRAA
<b>FORT COLLINS/LOVELAND WATER DISTRICT</b>						
SAMPLE SITE - DBP001-FCLSM4	µg/L	27	80	21.8	60	1 QTR LRAA
SAMPLE SITE - DBP002-FCLSM6	µg/L	34.2	80	16	60	1 QTR LRAA
<b>NORTH WELD COUNTY WATER DISTRICT</b>						
SAMPLE SITE - DBP001-NWCMSM1	µg/L	35.2	80	28	60	1 QTR LRAA
SAMPLE SITE - DBP002-NWCMSM4	µg/L	32.1	80	29	60	1 QTR LRAA
SAMPLE SITE - DBP003-NWCMSM RES 1	µg/L	31.2	80	27	60	1 QTR LRAA

MCL = Maximum Contaminate Level - Enforcable

BDL = Below Detectable Limit

\*SMCL = Secondary Maximum Contaminate Level - Recommended

ND = Not Detected

\*\*TT = Treatment Technique

N/A = Not applicable

RAA = Running Annual Average

LRAA = Location Running Annual Average

(FCL) = Fort Collins Lab (UL) = United Lab (AL) = Accutest Lab (SE) = Stewart Environmental Lab (WCL) = Weld County Lab

### Unregulated Contaminate Monitoring Rule 3 (UCMR3)

Starting in the month of August 2013 and continuing quarterly for one year, the EPA required all three water distribution districts, East Larimer County WD, Fort Collins Loveland WD, and North Weld County WD, to monitor a list of Unregulatory Contaminates that may or may not be present in the water supply. The purpose of monitoring for unregulated contaminants in drinking water is to provide data to support the EPA administrator's decisions concerning whether or not to regulate these contaminants in the future for the protection of public health.

Below is a list of the detected contaminants for each of the districts and the value detected with a brief description of what each detected contaminate is. Also included is a list of contaminants that were not detected. All lab analysis were performed by Underwriters Laboratory in South Bend Indiana. (EP = Entry point into the distribution system; MR = Maximum Residential Time in the distribution system).

<b>STRONTIUM</b>	Report Values	1ST QTR AUG 2013	2ND QTR NOV 2013	3RD QTR FEB 2014	4TH QTR MAY 2014	Minimum Reporting Value
East Larimer County WD	µg/L	EP = 42 MR=46	EP = 43 MR=45	EP = 45 MR=46	EP = 45 MR=49	0.3 µg/L
Fort Collins Loveland WD	µg/L	EP = 44 MR=44	EP = 46 MR=44	EP = 43 MR=45	EP = 47 MR=45	0.3 µg/L
North Weld County WD	µg/L	EP = 43 MR=43	EP = 43 MR=45	EP = 45 MR=46	EP = 46 MR=45	0.3 µg/L

**STRONTIUM** occurs naturally in the environment. Small amounts of Srontium are present in air, soil, food and drinking water.

<b>CHLORATE</b>	Report Values	1ST QTR AUG 2013	2ND QTR NOV 2013	3RD QTR FEB 2014	4TH QTR MAY 2014	Minimum Reporting Value
East Larimer County WD	µg/L	EP = 34 MR=48	EP = 60 MR=67	EP = 39 MR=55	EP = 53 MR=55	20.0 µg/L
Fort Collins Loveland WD	µg/L	EP = 39 MR=33	EP = 61 MR=60	EP = 47 MR=44	EP = 50 MR=54	20.0 µg/L
North Weld County WD	µg/L	EP = 36 MR=46	EP = 58 MR=71	EP = 39 MR=50	EP = 50 MR=50	20.0 µg/L

**CHLORITE** occurs in drinking water that has been disinfected with Sodium Hypochlorite or Chlorine Dioxide.

<b>HEXAVALENT CHROMIUM</b>	Report Values	1ST QTR AUG 2013	2ND QTR NOV 2013	3RD QTR FEB 2014	4TH QTR MAY 2014	Minimum Reporting Value
East Larimer County WD	µg/L	EP = ND MR=ND	EP = 0.04 MR=0.16	EP=0.04 MR=0.05	EP=ND MR=0.07	0.03 µg/L
Fort Collins Loveland WD	µg/L	EP = ND MR=0.14	EP = 0.07 MR=0.08	EP = ND MR=0.04	EP = 0.03 MR=0.05	0.03 µg/L
North Weld County WD	µg/L	EP = 0.04 MR=0.04	EP = 0.09 MR=0.05	EP = 0.04 MR=0.04	EP = 0.03 MR=0.04	0.03 µg/L

**HEXAVALENT CHROMIUM** can be found in low levels in water supplies either as the result of industrial activities or naturally occuring sources.

<b>VANADIUM</b>	Report Values	1ST QTR AUG 2013	2ND QTR NOV 2013	3RD QTR FEB 2014	4TH QTR MAY 2014	Minimum Reporting Value
East Larimer County WD	µg/L	EP = ND MR=ND	EP = 0.2 MR=ND	EP = 0.2 MR=ND	EP = ND MR=ND	0.2 µg/L
Fort Collins Loveland WD	µg/L	EP = ND MR=0.2	EP = 0.2 MR=ND	EP = ND MR=ND	EP = ND MR=ND	0.2 µg/L
North Weld County WD	µg/L	EP = ND MR=ND	EP = 0.2 MR=ND	EP = 0.2 MR=ND	EP = ND MR=ND	0.2 µg/L

**VANADIUM** is a metal that naturally occurs in many different minerals and in fossil fuel deposits.

The following is a list of monitored NON DETECTED contaminants on the UCMR3 list: Chromium (total); Cobalt; Molybdenum; 1,1-Dichloroethane; 1,2,3-Trichloropropane; 1,3-Butadiene; Bromochloromethane; Bromomethane; Chlorodifluoromethane; Chloromethane; 1,4-Dioxane; PFBS; PFH<sup>p</sup>A; PFH<sup>s</sup>S; PFNA; PFOA; PFOS.