

TRI DISTRICT/SOLDIER CANYON FILTER PLANT

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

WATER QUALITY REPORT

4TH QUARTER 2016

ANALYSIS PARAMETER <small>Monitored at SCFP (not a certified lab)</small>	Report	PLANT INFLUENT			PLANT EFFLUENT			MCL *SMCL
	Values	MIN	MAX	AVG	MIN	MAX	AVG	
ALKALINITY	mg/l	22.0	44.0	31.4	25.0	66.0	44.4	N/A
ALUMINUM	mg/l	N/A	N/A	N/A	0.000	0.022	0.008	*0.05 - 0.2
CALCIUM HARDNESS	mg/l	21.0	31.0	25.8	22.0	48.0	27.5	N/A
CHLORINE	mg/l	N/A	N/A	N/A	1.01	1.29	1.20	4.0
CHLORITE	mg/l	N/A	N/A	N/A	0.41	0.79	0.60	1.0
CHLORINE DIOXIDE	mg/l	N/A	N/A	N/A	0.00	0.00	0.00	0.8
CONDUCTIVITY	µs/cm	69.6	95.6	78.5	87.5	135.9	110.3	N/A
DISSOLVED OXYGEN	mg/l	0.6	11.2	6.2	N/A	N/A	N/A	N/A
FLUORIDE	mg/l	0.16	0.30	0.24	0.46	0.76	0.61	4.0/*2.0
HARDNESS (TOTAL)	mg/l	27.0	34.0	31.0	27.0	34.0	30.8	N/A
IRON	mg/l	0.02	0.18	0.07	0.00	0.02	0.01	*0.3
LANGLIER INDEX	S.I.#	-1.3	-2.4	-1.9	-0.8	-1.4	-1.1	N/A
MANGANESE	mg/l	0	0.32	0.11	0.001	0.010	0.004	*0.05
pH	VALUE	6.80	7.91	7.40	7.83	8.13	8.01	N/A
TEMPERATURE	°C	4.5	13.5	9.0	4.6	11.1	8.6	N/A
TOTAL DISSOLVED SOLIDS	mg/l	34.2	47.4	39.3	43.1	67.7	55.5	*500
TRUE COLOR	APHA	1.0	23.0	7.6	0.0	3.0	1.4	*15.0
TURBIDITY	NTU	0.20	3.34	1.35	0.016	0.059	0.023	**<0.3 TT

INORGANIC CONTAMINANTS ANALYSES (AL) - (ENTRY INTO THE DISTRIBUTION SYSTEM)			RESULTS	DATE	MCL
ANTIMONY	mg/l		BDL	10/12/2016	0.006
ARSENIC	mg/l		BDL	10/12/2016	0.010
BARIUM	mg/l		0.015	10/12/2016	2.000
BERYLLIUM	mg/l		BDL	10/12/2016	0.004
CADMIUM	mg/l		BDL	10/12/2016	0.005
CHROMIUM	mg/l		BDL	10/12/2016	0.1
CYANIDE	mg/l		NT	NT	0.2
FLUORIDE	mg/l		0.5	10/12/2016	4.0
MERCURY	mg/l		BDL	10/12/2016	0.002
NICKEL	mg/l		BDL	10/12/2016	*SMCL
SELENIUM	mg/l		BDL	10/12/2016	0.050
SODIUM	mg/l		14.4	10/12/2016	*SMCL
THALLIUM	mg/l		BDL	10/12/2016	0.002

NITRATE AND/OR NITRITE AS NITROGEN (AL) (UL) - (ENTRY INTO DISTRIBUTION SYSTEM)			RESULTS	DATE	MCL
NITRATE	mg/l		0.11	10/12/2016	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		3.5	1.9	1.31/1.17	10/12/2016	RAA - ≥1.0
			3.6	2	1.27/1.18	11/2/2016	RAA - ≥1.0
			3.7	2.2	1.16/1.18	12/5/2016	RAA - ≥1.0
			INFLUENT			DATE	MCL
ALKALINITY - (PLANT INFLUENT ONLY)	mg/l		30.6			10/12/2016	N/A
			29.7			11/2/2016	N/A
			24.4			12/5/2016	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
1,1,1-TRICHLOROETHANE	µg/L		BDL	10/12/2016	200
1,1,2-TRICHLOROETHANE	µg/L		BDL	10/12/2016	5
1,1-DICHLOROETHYLENE	µg/L		BDL	10/12/2016	7
1,2,4-TRICHLOROBENZENE	µg/L		BDL	10/12/2016	70
1,2-DICHLOROETHANE	µg/L		BDL	10/12/2016	5
1,2-DICHLOROPROPANE	µg/L		BDL	10/12/2016	5
BENZENE	µg/L		BDL	10/12/2016	5
CARBON TETRACHLORIDE	µg/L		BDL	10/12/2016	5
CHLOROBENZENE	µg/L		BDL	10/12/2016	100
cis-1,2-DICHLOROETHYLENE	µg/L		BDL	10/12/2016	70
DICHLOROMETHANE	µg/L		BDL	10/12/2016	5
ETHYLBENZENE	µg/L		BDL	10/12/2016	700
o-DICHLOROBENZENE	µg/L		BDL	10/12/2016	600
para-DICHLOROBENZENE	µg/L		BDL	10/12/2016	75
STYRENE	µg/L		BDL	10/12/2016	100
TETRACHLOROETHYLENE	µg/L		BDL	10/12/2016	5
TOLUENE	µg/L		BDL	10/12/2016	1000
trans-1,2-DICHLOROETHYLENE	µg/L		BDL	10/12/2016	100
TRICHLOROETHYLENE	µg/L		BDL	10/12/2016	5
VINYL CHLORIDE	µg/L		BDL	10/12/2016	2
XYLENES (total)	µg/L		BDL	10/12/2016	10000

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

			RESULTS	DATE	MCL	
1,2-DIBROMO-3-CHLOROPROPANE	µg/L	BDL	6/18/2014	BDL	9/10/2014	0.2
2,4-D	µg/L	BDL	6/18/2014	BDL	9/10/2014	70
2,4,5-TP	µg/L	BDL	6/18/2014	BDL	9/10/2014	50
ALACHLOR (LASSO)	µg/L	BDL	6/18/2014	BDL	9/10/2014	2
ALDICARB	µg/L	BDL	6/18/2014	BDL	9/10/2014	N/A
ALDICARB SULFONE	µg/L	BDL	6/18/2014	BDL	9/10/2014	N/A
ALDICARB SULFOXIDE	µg/L	BDL	6/18/2014	BDL	9/10/2014	N/A
ATRAZINE	µg/L	BDL	6/18/2014	BDL	9/10/2014	3
BENZO(a)PYRENE	µg/L	BDL	6/18/2014	BDL	9/10/2014	0.2
CARBOFURAN	µg/L	BDL	6/18/2014	BDL	9/10/2014	40
CHLORDANE	µg/L	BDL	6/18/2014	BDL	9/10/2014	2
DALAPON	µg/L	BDL	6/18/2014	BDL	9/10/2014	200
DINOSEB	µg/L	BDL	6/18/2014	BDL	9/10/2014	7
DIQUAT	µg/L	BDL	6/18/2014	BDL	9/10/2014	20
DI(2-ethylhexyl)ADIPATE	µg/L	BDL	6/18/2014	BDL	9/10/2014	400
DI(2-ethylhexyl)PHTHALATE	µg/L	BDL	6/18/2014	BDL	9/10/2014	6
ENDOTHALL	µg/L	BDL	6/18/2014	BDL	9/10/2014	100
ENDRIN	µg/L	BDL	6/18/2014	BDL	9/10/2014	2
ETHYLENE DIBROMIDE	µg/L	BDL	6/18/2014	BDL	9/10/2014	0.05
HEPTACHLOR	µg/L	BDL	6/18/2014	BDL	9/10/2014	0.4
HEPTACHLOR EPOXIDE	µg/L	BDL	6/18/2014	BDL	9/10/2014	0.2
HEXACHLOROBENZENE	µg/L	BDL	6/18/2014	BDL	9/10/2014	1

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

						RESULTS	DATE	MCL
HEXACHLOROCYCLOPENTADIENE	µg/L		BDL	6/18/2014		BDL	9/10/2014	50
LINDANE/BHC-GAMMA	µg/L		BDL	6/18/2014		BDL	9/10/2014	0.2
METHOXYCHLOR	µg/L		BDL	6/18/2014		BDL	9/10/2014	40
OXAMYL	µg/L		BDL	6/18/2014		BDL	9/10/2014	200
PENTACHLOROPHENOL	µg/L		BDL	6/18/2014		BDL	9/10/2014	1
PICLORAM	µg/L		BDL	6/18/2014		BDL	9/10/2014	500
POLYCHLORINATED BIPHENYLS	µg/L		BDL	6/18/2014		BDL	9/10/2014	0.5
SIMAZINE	µg/L		BDL	6/18/2014		BDL	9/10/2014	4
TOXAPHENE	µg/L		BDL	6/18/2014		BDL	9/10/2014	3

DISTRIBUTION SYSTEMS SAMPLES

CHLORINE (Districts Measure)

		TOTAL SAMPLES	MIN	MAX	AVG	DATE	MCL
EAST LARIMER COUNTY WATER DISTRICT	mg/L	20	0.50	0.90	0.70	Oct-16	Low <0.2 High >4.0
EAST LARIMER COUNTY WATER DISTRICT	mg/L	20	0.30	0.90	0.65	Nov-16	Low <0.2 High >4.0
EAST LARIMER COUNTY WATER DISTRICT	mg/L	20	0.3	1.0	0.70	Dec-16	Low <0.2 High >4.0
FORTCOLLINS/LOVELAND WATER DISTRICT	mg/L	40	0.40	1.00	0.69	Oct-16	Low <0.2 High >4.0
FORTCOLLINS/LOVELAND WATER DISTRICT	mg/L	42	0.35	1.00	0.63	Nov-16	Low <0.2 High >4.0
FORTCOLLINS/LOVELAND WATER DISTRICT	mg/L	40	0.20	1.00	0.63	Dec-16	Low <0.2 High >4.0
NORTH WELD COUNTY WATER DISTRICT	mg/L	10	0.23	0.91	0.67	Oct-16	Low <0.2 High >4.0
NORTH WELD COUNTY WATER DISTRICT	mg/L	10	0.27	0.82	0.65	Nov-16	Low <0.2 High >4.0
NORTH WELD COUNTY WATER DISTRICT	mg/L	10	0.45	0.85	0.72	Dec-16	Low <0.2 High >4.0

TOTAL COLIFORMS (SE/WCL)

		TOTAL SAMPLES	# POSITIVE	# NEGITIVE	DATE	MCL **TT LEVEL 1 or 2
EAST LARIMER COUNTY WATER DISTRICT		20	0	20	Oct-16	NO/NO
EAST LARIMER COUNTY WATER DISTRICT		20	0	20	Nov-16	NO/NO
EAST LARIMER COUNTY WATER DISTRICT		20	0	20	Dec-16	NO/NO
FT COLLINS/LOVELAND WATER DISTRICT		40	0	40	Oct-16	NO/NO
FT COLLINS/LOVELAND WATER DISTRICT		42	0	42	Nov-16	NO/NO
FT COLLINS/LOVELAND WATER DISTRICT		40	0	40	Dec-16	NO/NO
NORTH WELD COUNTY WATER DISTRICT		10	0	10	Oct-16	NO/NO
NORTH WELD COUNTY WATER DISTRICT		10	0	10	Nov-16	NO/NO
NORTH WELD COUNTY WATER DISTRICT		10	0	10	Dec-16	NO/NO

DISTRIBUTION SYSTEMS SAMPLES

Total Trihalomethanes and Haloacetic Acids (AL)

		TTHM RESULTS	MCL (LRAA)	HAA RESULTS	MCL (LRAA)	DATE
EAST LARIMER COUNTY WATER DISTRICT						
SAMPLE SITE - DBP001-ELCSM4	µg/L	25.8	80	21.1	60	10/11/2016
SAMPLE SITE - DBP002-ELCSM6	µg/L	47.8	80	33.3	60	10/11/2016
SAMPLE SITE - DBP003-ELCSM2	µg/L	31.9	80	22.4	60	10/11/2016
FORT COLLINS/LOVELAND WATER DISTRICT						
SAMPLE SITE - DBP001-FCLSM4	µg/L	20.9	80	18.3	60	10/11/2016
SAMPLE SITE - DBP002-FCLSM6	µg/L	29.0	80	26.2	60	10/11/2016
NORTH WELD COUNTY WATER DISTRICT						
SAMPLE SITE - DBP001-NWCMS1	µg/L	64.2	80	23.4	60	10/11/2016
SAMPLE SITE - DBP002-NWCMS4	µg/L	37.4	80	26.9	60	10/11/2016
SAMPLE SITE - DBP003-NWC MAX RES 1	µg/L	39.1	80	24.4	60	10/11/2016

CHLORITE (AL)

		1ST TD	AVG	MAX	DATE	MCL
CHLORITE	mg/L	0.67	0.66	0.66	10/18/2016	1.0

LEAD AND COPPER (AL)

		90TH PERCENTILE mg/L	DATE	90th% ACTION LEVEL mg/L
LEAD	mg/L	0.0085	Jun-15	0.015
COPPER	mg/L	0.34	Jun-15	1.3

MCL = Maximum Contaminate Level - Enforcable

*SMCL = Secondary Maximum Contaminate Level - Reccomended

**TT = Treatment Technique

SOC = Synthetic Organic Chemicals

RAA = Running Annual Average

ACTION LEVEL = Addition treatment required if exceeded

< = Less Than

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

BDL = Below Detectable Limit

ND = Not Detected

N/A = Not applicable

VOC = Volatile Organic Chemicals

LRAA = Location Running Annual Average

> = Greater Than