

September 23, 2020

Nina Ruiz
Project Manager
El Paso County Planning and Community Development
2880 International Circle, Suite 110
Colorado Springs, CO 80910

RE: Water Quality – Confined Aquifer
Section 8.4.7.B.10(a) of the Amended El Paso County Land Development Code (LDC-19-007)
Resolution No. 19-329
for the Proposed Studer Subdivision located at 2727 Evergreen Road,
Colorado Springs, CO 80921

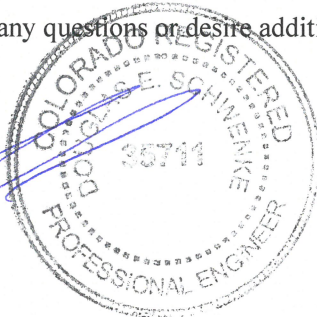
Dear El Paso County Commissioners,

Water quality is provided according to Section 8.4.7.B.10(a) of the Amended El Paso County Land Development Code (LDC-19-007), Resolution No. 19-329, for the Proposed Studer Subdivision located at 2727 Evergreen Road, Colorado Springs, CO 8092. Water supply for the proposed Studer Subdivision is anticipated to be the Not-Nontributary Dawson aquifer. Representative samples were obtained from Marlena Studer's well, which is drilled into the Dawson and within ½ mile of the proposed subdivision per LDC requirements. None of the contaminants tested reported results above any Maximum Contaminant Level (MCL) or Secondary Maximum Contaminant Level (SMCL) requirements of the Colorado Primary Drinking Water Regulation 11.

Please let me know if you have any questions or desire additional information.

Sincerely,


Douglas E. Schwenke, P.E.
JDS-Hydro Consultants, Inc.



Attachments:
Tabulated required water quality results
Lab reports

El Paso County Land Development Code
Water Quality Requirements and Results
Dawson Confined Aquifer
Studer Subdivision
Sampled July 28, 2020

Compound	Units	MCL/SMCL	Result
Antimony	mg/l	0.006	<0.001
Arsenic	mg/l	0.01	<0.001
Barium	mg/l	2	0.018
Beryllium	mg/l	0.004	<0.001
Cadmium	mg/l	0.005	<0.001
Chromium	mg/l	0.1	<0.001
Cyanide (Total)	mg/l	0	<0.005
Fluoride	mg/l	4	0.13
Mercury	mg/l	0.002	<0.0001
Nitrate as N	mg/l	10	3.1
Nitrite as N	mg/l	1	<0.03
Total Nitrate/Nitrite as N	mg/l	10	3.1
Selenium	mg/l	0.05	0.001
Thallium	mg/l	0.002	<0.001
Aluminum	mg/l	0.05	0.002
Chloride	mg/l	250	2.6
Langlier Index			-2.5
Iron	mg/l	0.3	<0.005
Manganese	mg/l	0.05	<0.0008
pH		6.5 - 8.5	6.55
Silver	mg/l	0.1	<0.0005
Sulfate	mg/l	250	5.8
TDS	mg/l	500	101
Zinc	mg/l	5	0.039
Gross Alpha/Beta	pCi/l	15	<4.5
Combined Radium 226+228	pCi/l	5	2.8
Total Coliform	#/100 ml	Absent	Absent

Green = Result below MCL - Acceptable Water Quality

STANDARD BACTERIOLOGICAL WATER TEST METHOD:SM-9223B
El Paso County Public Health Laboratory EPA ID# CO00025
1675 West Garden of the Gods Road, Suite 2044, Colorado Springs, CO 80907 - (719) 578-3120

PWSID ☐ Raw
☐ Finished
☐ LT2
☐ Quantitative

Sample Point ID:

Sample Taken Date: 05/26/2020 Time: 1330 Name of Supply:

Address where sample was taken: 2727 Evergreen Road

Sample site location: Residence Sampler: Harry Studer Chlorine: mg/L

☐ Community Supply ☐ Private ☐ Well ☐ City
☐ Non-Community ☐ EHS ☐ Surface/Spring ☐ Cistern

Results to: Harry Studer Phone: (303) 882-5524

Mailing address: 2715 W 119 Ave.

City/State/Zip: WESTMINSTER, CO. 80234

Fax/Email: harrstuder@yahoo.com

Comments:

Date 05/26/2020 Time 1346 Rc'd EE0000728

Date 05/26/2020 Time 1636 Tested EE0000728

Date 05/27/2020 Time 1129 Comp EE0000744

Lab Sample #18410

Colliert Results Per 100ml

☒ Absence: Absence of coliform bacteria
☐ Presence: Presence of coliform bacteria & non-compliance with drinking water standards.

MPN/100 ml:

☒ Absence: E. Coli: Escherichia coli bacteria
☐ Presence:

MPN/100 ml:



1675 W. Garden of the Gods Road Suite 2044
 Colorado Springs, CO 80907 (719) 578-3120

REPORTING FORM FOR INORGANIC ANIONS IN WATER
 EPA ID # CO00025

PWSID# CO0	CONTACT: Harry Studer
SITE ADDRESS: 2727 Evergreen Road Colorado Springs, CO 80921	PHONE: (303) 882-5524
	FAX/EMAIL: harrstuder@yahoo.com
	COLLECTED BY: Harry Studer
	SAMPLE COLLECTION DATE: 5/26/20
SITE DESCRIPTION: <input type="checkbox"/> Public System <input type="checkbox"/> Private <input type="checkbox"/> Surface <input type="checkbox"/> Stream <input type="checkbox"/> GWUDI <input type="checkbox"/> Other	SAMPLE COLLECTION TIME: 1330
	MATRIX: Groundwater
	RESIDUAL CHLORINE: mg/L
CUSTOMER: Harry Studer 2715 W 119 Ave. WESTMINSTER, CO 80234	SAMPLE RECEIVED DATE: 5/26/20
	RECEIVED TIME: 1346 TECH: EE0000728
	RECEIVED TEMP: 0.0°C
	DILUTIONS: 1:5

COMMENTS:

TESTED	COMPLETED	TECH
DATE: 05/27/2020	DATE: 05/27/2020	
TIME: 1015	TIME: 1834	ID: EE0000744
LAB SAMPLE #:IC18412	SAMPLE POINT NAME: Residence	
SAMPLE POINT ID:	FACILITY TYPE:	
FACILITY ID:	FACILITY NAME:	

PARAMETER	RESULTS	UNITS	MCL	MSL	STANDARD METHOD	LAB MRL
Fluoride		mg/L	4.0		EPA 300	0.04
Chloride		mg/L		250	EPA 300	0.1
Nitrite-N		mg/L	1.0		EPA 300	0.2
Bromide		mg/L				0.2
Nitrate-N	3.1	mg/L	10.0		EPA 300	0.2
Orthophosphate-P		mg/L	no limit established		EPA 300	0.3
Sulfate		mg/L		250	EPA 300	0.3

BDL - Below Detection Limit
 MRL - Minimum Reporting Limit

MCL - Maximum Contamination Unit per EPA
 MSL - Maximum Secondary Unit per EPA
 Q - Quality Control Limit Exceeded

H - Holding Time Exceeded
 NT - No Test

Analytical Results

TASK NO: 200729085

Report To: Doug Schwenke

Company: JDS Hydro Consultants
5540 Tech Center Dr.
Suite 100
Colorado Springs CO 80919

Bill To: Doug Schwenke

Company: JDS Hydro Consultants
5540 Tech Center Dr.
Suite 100
Colorado Springs CO 80919

Task No.: 200729085
Client PO:
Client Project:

Date Received: 7/29/20
Date Reported: 8/6/20
Matrix: Water - Drinking

Customer Sample ID Studer Well
Sample Date/Time: 7/28/20 11:14 AM
Lab Number: 200729085-01

Test	Result	Method	ML	Date Analyzed	Analyzed By	MCL
Chloride	2.6 mg/L	EPA 300.0	0.1 mg/L	7/29/20	MAT	
Fluoride	0.13 mg/L	EPA 300.0	0.09 mg/L	7/29/20	MAT	4
Nitrite Nitrogen	< 0.03 mg/L	EPA 300.0	0.03 mg/L	7/29/20	MAT	1
Sulfate	5.8 mg/L	EPA 300.0	0.1 mg/L	7/29/20	MAT	
Cyanide-Free	< 0.005 mg/L	EPA 335.4	0.005 mg/L	7/30/20	CES	
Total						
Iron	< 0.005 mg/L	EPA 200.7	0.005 mg/L	8/4/20	MBN	0.3
Sodium	6.2 mg/L	EPA 200.7	0.1 mg/L	8/4/20	MBN	N/A
Aluminum	0.002 mg/L	EPA 200.8	0.001 mg/L	8/5/20	IPC	0.05
Antimony	< 0.001 mg/L	EPA 200.8	0.001 mg/L	8/3/20	IPC	0.006
Arsenic	< 0.001 mg/L	EPA 200.8	0.001 mg/L	8/3/20	IPC	0.01
Barium	0.018 mg/L	EPA 200.8	0.001 mg/L	8/3/20	IPC	2
Beryllium	< 0.001 mg/L	EPA 200.8	0.001 mg/L	8/3/20	IPC	0.004
Cadmium	< 0.001 mg/L	EPA 200.8	0.001 mg/L	8/3/20	IPC	0.005
Chromium	< 0.001 mg/L	EPA 200.8	0.001 mg/L	8/3/20	IPC	0.1
Manganese	< 0.0008 mg/L	EPA 200.8	0.0008 mg/L	8/5/20	IPC	0.05
Mercury	< 0.0001 mg/L	EPA 200.8	0.0001 mg/L	8/3/20	IPC	0.002
Nickel	< 0.001 mg/L	EPA 200.8	0.001 mg/L	8/3/20	IPC	N/A
Selenium	0.001 mg/L	EPA 200.8	0.001 mg/L	8/3/20	IPC	0.05

Abbreviations/ References:

ML = Minimum Level = LRL = RL
MCL = Maximum Contaminant Level per The EPA
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed



DATA APPROVED FOR RELEASE BY

10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313
Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

Analytical Results

TASK NO: 200729085

Report To: Doug Schwenke

Company: JDS Hydro Consultants
5540 Tech Center Dr.
Suite 100
Colorado Springs CO 80919

Bill To: Doug Schwenke

Company: JDS Hydro Consultants
5540 Tech Center Dr.
Suite 100
Colorado Springs CO 80919

Task No.: 200729085

Client PO:

Client Project:

Date Received: 7/29/20

Date Reported: 8/6/20

Matrix: Water - Drinking

Customer Sample ID Studer Well

Sample Date/Time: 7/28/20 11:14 AM

Lab Number: 200729085-01

Test	Result	Method	ML	Date Analyzed	Analyzed By	MCL
<u>Total</u>						
Silver	< 0.0005 mg/L	EPA 200.8	0.0005 mg/L	8/5/20	IPC	
Thallium	< 0.001 mg/L	EPA 200.8	0.001 mg/L	8/3/20	IPC	0.002
Zinc	0.039 mg/L	EPA 200.8	0.001 mg/L	8/5/20	IPC	5

Abbreviations/ References:

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Suite 100
Colorado Springs CO 80919

Task No.: 200729085

Client PO:

Client Project:

Date Received: 7/29/20

Date Reported: 8/6/20

Matrix: Water - Drinking

Customer Sample ID Studer Well

Sample Date/Time: 7/28/20 11:14 AM

Lab Number: 200729085-01

Test	Result	Method	ML	Date Analyzed	Analyzed By
Bicarbonate	31.4 mg/L as CaCO ₃	SM 2320-B	4	7/31/20	CSN
Calcium as CaCO ₃	21.9 mg/L	EPA 200.7	0.1	8/4/20	MBN
Carbonate	< 4 mg/L as CaCO ₃	SM 2320-B	4	7/31/20	CSN
Hydroxide	< 4 mg/L as CaCO ₃	SM 2320-B	4	7/31/20	CSN
Langelier Index	-2.51 units	SM 2330-B		8/5/20	SAN
pH	6.55 units	SM 4500-H-B	0.01	7/28/20	Sampler
Temperature	16 °C	SM 4500-H-B	1	7/28/20	Sampler
Total Alkalinity	31.4 mg/L as CaCO ₃	SM 2320-B	4	7/31/20	CSN
Total Dissolved Solids	101 mg/L	SM 2540-C	5	8/3/20	ISG

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Date Analyzed = Date Test Completed



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Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

Page 1 of 3

200729085

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Hazen Research, Inc.
4601 Indiana Street
Golden, CO 80403 USA
Tel: (303) 279-4501
Fax: (303) 278-1528

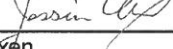
Customer ID: 20040H
Account ID: Z01034

Lab Control ID: 20M02375
Received: Jul 30, 2020
Reported: Sep 16, 2020
Purchase Order No.
None Received

Stuart Nielson
Colorado Analytical Laboratories, Inc.
10411 Heinz Way
Commerce City, CO 80640

ANALYTICAL REPORT

*Report may only be copied in its entirety.
Results reported herein relate only to discrete samples
submitted by the client. Hazen Research, Inc. does not warrant
that the results are representative of anything other than the
samples that were received in the laboratory*

By: 
Jessica Axen
Analytical Laboratories Director



Hazen Research, Inc.
4601 Indiana Street
Golden, CO 80403 USA
Tel: (303) 279-4501
Fax: (303) 278-1528

Lab Control ID: 20M02375
Received: Jul 30, 2020
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Purchase Order No.
None Received

Customer ID: 20040H
Account ID: Z01034

ANALYTICAL REPORT

Stuart Nielson
Colorado Analytical Laboratories, Inc.

Lab Sample ID			20M02375-001					
Customer Sample ID			200729086-01 - Studer Well sampled on 07/28/20 @ 1110 by Stephanie Schwenke					
Parameter	Units	Code	Result	Precision* +/-	Detection Limit	Method	Analysis Date / Time	Analyst
Gross Alpha	pCi/L	T	0.6	1.5	0.1	SM 7110 B	9/1/20 @ 0916	KT
Gross Beta	pCi/L	T	<3.9	2.1	3.9	SM 7110 B	9/1/20 @ 0916	KT
Radium-226	pCi/L	T	0.6	0.3	0.1	SM 7500-Ra B	9/10/20 @ 1025	SS/SA
Radium-228	pCi/L	T	2.2	0.9	0.3	EPA Ra-05	8/18/20 @ 1151	JR

Certification ID's: CO/EPA CO00008; CT PH-0152; KS E-10265; MI 9070; NJ CO008;
NYSELAP (NELAC Certified) 11417; RI LAO00284; WI 998376610, TX T104704256-15-6

*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.

Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Total Residual (AR) = As Received < = Less Than