

September 9, 2022

# Water Resources Report

## Boyd Subdivision Filing No. 1

The following describes the water supply to serve three (3) residential lots on 35.88 acres located within the Southwest quarter of the Southwest quarter of Section 7, Township 11 South, Range 65 West of the 6<sup>th</sup> principal meridian in El Paso County, Colorado (Subject Property). This letter is based on a decree entered in Case Number 2021CW3156, Water Division 1 (consolidated with Case Number 2021CW3041, Water Division 2) (Decree/copy attached), which decreed the Dawson groundwater underlying the Subject Property, and approves a plan for augmentation for use of up to three (3) wells in the Dawson aquifer to serve each lot for a 300-year water supply period. Three wells are proposed following platting of the property into three lots.

### AMOUNTS DECREED AND AVAILABLE

There are four aquifers identified in the decree entered in Case No. 2021CW3156 that exist beneath the subject property. The decreed amounts of three of the aquifers are nontributary (Denver, Arapahoe, and Laramie-Fox Hills), and the decreed amount of the other aquifer is not-nontributary (Dawson). The referenced decree sets forth withdrawal amounts based on 100-year aquifer life but allows withdrawal over a longer term as required by local regulations. El Paso County requires demonstration of adequate water supply for a 300-year term. Therefore, the amounts in the decree are adjusted in this report to account for a 300-year term. The following annual amounts are decreed and are based on annual withdrawals over a 300-year period (one acre-foot is 325,851 gallons). Annual withdrawals from yet to be constructed wells on proposed Lots 1, 2, & 3 from the Dawson aquifer (not-nontributary) shall not exceed 0.75-acre feet each (244,388.25 gallons). The State or Division Engineer shall curtail the pumping of more than those amounts from the Dawson aquifer.

### WATER SUPPLY

The residential lots (up to three potential as assumed in the Decree) will be served by individual not-nontributary Dawson aquifer wells to be permitted and to operate pursuant to an augmentation plan as approved in the Decree. The Decree quantifies and adjudicates the groundwater under the subject property (Paragraph 7) and approves a plan for augmentation to allow pumping of 2.25 acre-feet per year for 300 years of not-nontributary Dawson Aquifer groundwater for the uses described in Paragraph 15.3 and summarized as follows:

In-house use	0.9 acre-feet per year (0.3 acre-feet per year for each lot)
Irrigation use	1.2 acre-feet per year (0.4 acre-feet per year for each lot) limited to irrigation of lawn, garden, trees, and use in greenhouses of up to 8,000 square-feet
Stock-watering use	0.15 acre-feet per year (0.05 acre-feet per year for each lot) limited to watering 4 large domestic animals

Total amount over 300 years =  $300 \times 2.25 = 675$  acre-feet

Total decreed Dawson aquifer water = 3,340 acre-feet

The water supply for the residential lots using three (3) Dawson aquifer wells pursuant to the augmentation plan approved in the referenced Decree is sufficient and satisfies the 300-year supply requirement of El Paso County.

#### AUGMENTATION

The Plan for Augmentation is established in the decree entered in Case Number 2021CW3156, Water Division 1 (consolidated with Case Number 2021CW3041, Water Division 2) (Decree/copy attached). Use of yet to be drilled wells on proposed Lots 1, 2, & 3 from the Dawson aquifer (not-nontributary), requires replacement of actual stream depletion.

Depletion caused by pumping water from the Dawson aquifer shall be replaced as provided and decreed. The augmentation obligation for the three proposed wells are septic return flows from indoor uses. Also, and as described in Paragraph 15.5, 2.25 acre-feet per year of the Laramie-Fox Hills aquifer groundwater is reserved for use in the augmentation plan after the 300 years of pumping ends or when all of the Dawson aquifer groundwater has been withdrawn (675 acre-feet total). The Augmentation Plan provided by the referenced decree prescribes a pumping period of 300 years, as required to meet El Paso County's 300-year water requirement for approval of subdivisions utilizing non-renewable water resources for their source of water supply. Covenants for this subdivision will reinforce the findings and responsibilities and requirements of referenced water court decree.

#### WATER QUALITY

There are no existing wells located on the proposed Boyd Subdivision site. Therefore, in accordance with El Paso Land Development Code Section 8.4.7.(B).(10).(e), water testing results from a nearby well are provided to support a finding of sufficient water quality. The subject well is located at 18885 Brown Road and has Division of Water Resources Permit No. 280006. The well is directly adjacent to the north side of proposed Boyd Subdivision, within 1/2 mile of the site. Water test results are dated 10/9/2020.

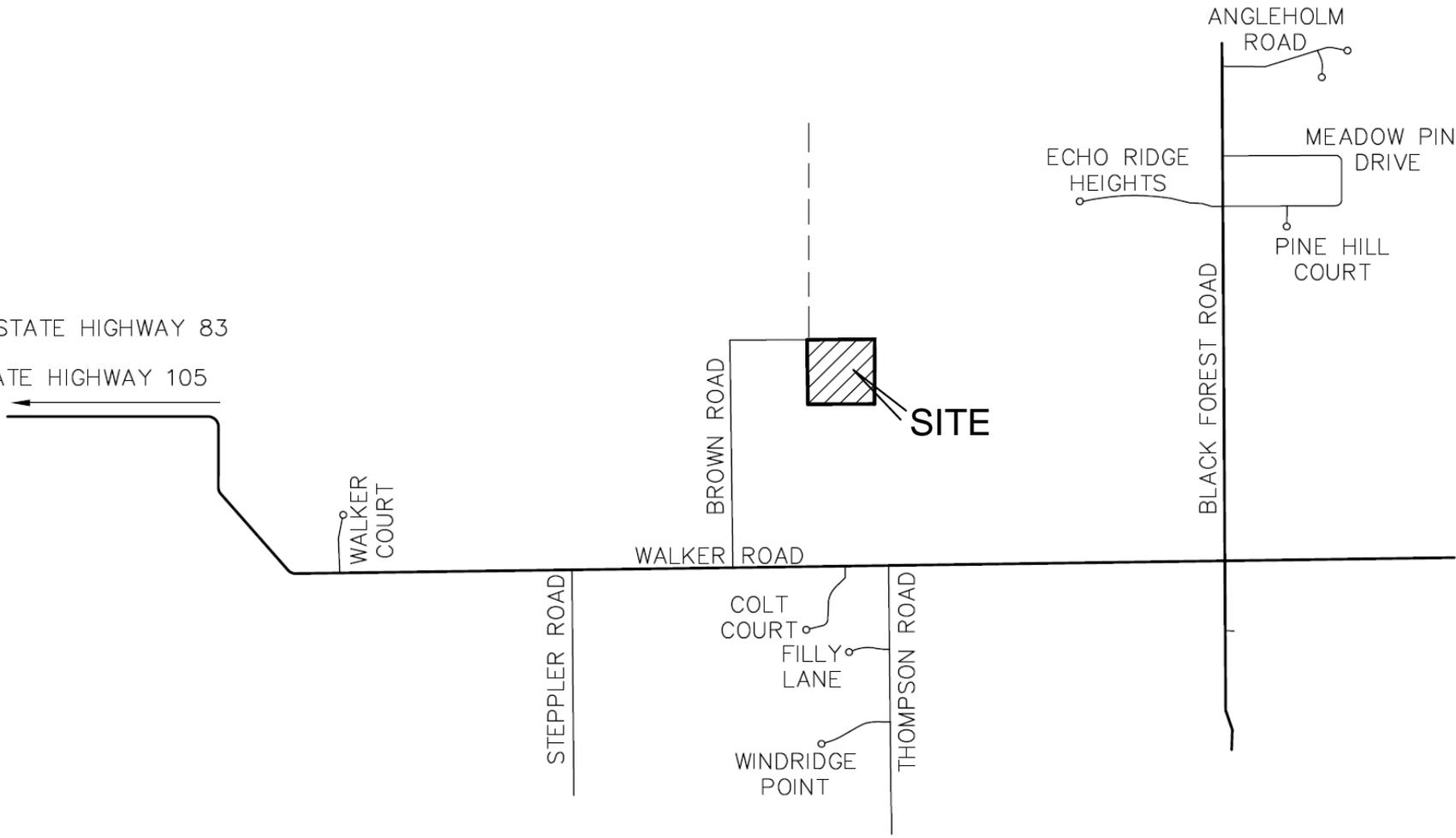
Testing for the required contaminants was performed by Colorado Analytical Laboratory and Hazen Research, Inc. Test results were examined for each of the required contaminants in accordance with the El Paso County Land Development Code. The Dawson Aquifer is a confined aquifer. Test results are compared to the Maximum Contaminant Level (MCL) for each substance, and all found to be within acceptable levels in accordance with El Paso County standards contained in the Land Development Code. All results meet the minimum standards of El Paso County and the State of Colorado. The testing results are attached.

#### ATTACHMENTS

- Vicinity Map
- Final Decree - Boyd - 21CW3156
- Water Supply Information Summary
- Water Quality Testing Results



TO STATE HIGHWAY 83  
STATE HIGHWAY 105



SITE

VICINITY MAP  
NO SCALE

<b>DISTRICT COURT, WATER DIVISION 1, COLORADO</b> Weld County Courthouse P.O. Box 2038 Greeley, CO 80632	DATE FILED: March 11, 2022 11:17 AM CASE NUMBER: 2021CW3156  <b>▲ COURT USE ONLY ▲</b>
<b>APPLICATION FOR UNDERGROUND WATER RIGHTS AND PLAN FOR AUGMENTATION OF CHRISTOPHER and JESSICA BOYD, Applicants,</b>  IN EL PASO COUNTY	Case Number: 2021CW3156  Consolidated with: Case No. 2021CW3041, Water Division 2
<b>FINDINGS OF FACT, CONCLUSIONS OF LAW, RULING OF THE REFEREE, AND JUDGMENT AND DECREE</b>	

A claim for underground water rights and a plan for augmentation was filed in this case on August 31, 2021. All matters contained in the application having been reviewed, such testimony having been taken and evidence presented as was necessary, and being otherwise fully advised in the premises, it is hereby the Findings of Fact, Conclusions of Law, Ruling of the Referee, and Judgment and Decree, as follows:

**FINDINGS OF FACT**

1. Name and address of Applicants:

Christopher & Jessica Boyd  
6238 Gilmer Way  
Westerville, OH 43081

2. Motion to Consolidate: On November 8, 2021 a Motion for Transfer and Consolidation of Multidistrict Litigation was filed by the Applicants in Case No. 2021CW3156, Water Division 1 and Case No. 2021CW3041, Water Division 2, under Case No. 2021MD20. On December 6, 2021, the Order Pursuant to C.R.C.P. 42.1(i) was issued and both cases were consolidated in Water Division 1 under Case No. 2021CW3156.

3. Statements of Opposition: No statements of opposition were filed and the time for filing of such statements has expired.

4. Subject Matter Jurisdiction: Timely and adequate notice of the application was published as required by statute, and the Court has jurisdiction over the subject matter of this proceeding and over the parties affected hereby, whether they have appeared or not.

5. Consultation: The Water Referee consulted with the Division 1 Engineer, as required by C.R.S. § 37-92-302(4), on November 8, 2021, and the Division 1 Engineer filed their summary of consultation on November 30, 2021. The amounts herein are consistent with

and conform to the values and amounts referenced in the State Engineer's Determinations of Facts dated October 12, 2021.

**GROUNDWATER RIGHTS**

6. Aquifers and Location of Groundwater: Applicants are granted a decree for rights to groundwater in the not-nontributary Dawson Aquifer, and the nontributary Denver, Arapahoe and Laramie-Fox Hills aquifers underlying 35.88 acres of land generally located in the SW1/4 SW1/4, Section 7, Township 11 South, Range 65 West of the 6th P.M., also known as 18735 Brown Road, Colorado Springs, CO, 80908, El Paso County, State of Colorado as shown on **Exhibit A** (“Subject Property”).
  
7. Well Locations, Pumping Rates, and Annual Amounts: The groundwater may be withdrawn at rates of flow necessary to withdraw the amounts decreed herein. The groundwater will be withdrawn through any number of wells necessary, to be located at any location on the Subject Property. Applicants waive any 600-foot spacing rule for wells located on the Subject Property, but must satisfy C.R.S. § 37-90-137(4), for wells owned by other on adjacent properties. The following average annual amounts are available for withdrawal subject to the Court's retained jurisdiction in this matter.

Aquifer	Saturated Thickness (feet)	Annual Amount 100 Years (acre-feet)	Annual Amount 300 Years (acre-feet)	Total Amount (acre-feet)
Dawson (NNT)	465	33.4	11.13	3,340
Denver (NT)	490	29.9	9.97	2,990
Arapahoe (NT)	260	15.9	5.3	1,590
Laramie-Fox Hills (NT)	205	11	3.67	1,100

8. Well Permits: Well permits will be applied for prior to construction of any wells.
  
9. Decreed Uses: The water will be used for domestic, commercial, irrigation, including in greenhouses, swimming pool filling, stockwatering, fire protection, and augmentation purposes, including storage, both on and off the Subject Property.
  
10. Estimated Average Pumping Rate and Well Depths: Wells will withdraw the subject groundwater at rates of flow necessary to withdraw the entire decreed annual amounts of groundwater. A site specific evaluation must be conducted with each well permit to identify the interval due to the varied elevation of the aquifer and surface topography.
  
11. Final Average Annual Amounts of Withdrawal:
  - 11.1 Final determination of the applicable average saturated sand thicknesses and resulting average annual amounts available to Applicants will be made pursuant to the retained jurisdiction of this Court, as described in Paragraph 28 below. The Court shall use the acre-foot amounts in Paragraph 7 herein in the interim period, until a final determination of water rights is made.

11.2 The allowed annual amount of groundwater which may be withdrawn through the wells specified above and any additional wells, pursuant to C.R.S. § 37-90-137(10), may exceed the average annual amount of withdrawal, as long as the total volume of water withdrawn through such wells and any additional wells constructed subsequent to the date of this decree does not exceed the product of the number of years since the date of the issuance of any well permits or the date of this decree, whichever is earliest in time, multiplied by the average annual amount of withdrawal, as specified above or as determined pursuant to the retained jurisdiction of the Court. However, amounts set forth in well permits will not be exceeded.

12. Source of Groundwater and Limitations on Consumption:

12.1 The groundwater to be withdrawn from the Denver, Arapahoe and Laramie-Fox Hills aquifers is "nontributary groundwater" as defined in C.R.S. § 37-90-103(10.5), and in the Denver Basin Rules, the withdrawal of which will not, within 100 years of continuous withdrawal, deplete the flow of a natural stream, including a natural stream as defined in C.R.S. §§ 37-82-101(2) and 37-92-102(1)(b), at an annual rate greater than 1/10 of 1% of the annual rate of withdrawal. The groundwater to be withdrawn from the Dawson Aquifer is "not-nontributary" as defined in C.R.S. §§ 37-90-103(10.7) and 37-90-137(9)(c.5) and will not be withdrawn without a plan for augmentation.

12.2 Applicants may not consume more than 98% of the annual quantity of water withdrawn from the nontributary aquifers. The relinquishment of 2% of the annual amount of water withdrawn to the stream system, as required by the Denver Basin Rules effective January 1, 1986, may be satisfied by any method selected by the Applicants and satisfactory to the State Engineer, so long as Applicants can demonstrate that an amount equal to 2% of such withdrawals (by volume) has been relinquished to the stream system.

12.3 There is unappropriated groundwater available for withdrawal from the subject aquifers beneath the Subject Property, and the vested water rights of others will not be materially injured by such withdrawals as described herein. Withdrawals hereunder are allowed on the basis of an aquifer life of 100 years, assuming no substantial artificial recharge within 100 years. No material injury to vested water rights of others will result from the issuance of permits for wells which will withdraw not-nontributary and nontributary groundwater or the exercise of the rights and limitations specified in this decree.

13. Additional Wells and Well Fields:

- 13.1 Applicants may construct additional and replacement wells in order to maintain levels of production, to meet water supply demands or to recover the entire amount of groundwater in the subject aquifers underlying the Subject Property. As additional wells are planned, applications shall be filed in accordance with C.R.S. § 37-90-137(10).
- 13.2 Two or more wells constructed into a given aquifer shall be considered a well field. In effecting production of water from such well field, Applicants may produce the entire amount which may be produced from any given aquifer through any combination of wells within the well field.
- 13.3 In considering applications for permits for wells or additional wells to withdraw the groundwater which is the subject of this decree, the State Engineer shall be bound by this decree and shall issue said permits in accordance with provisions of C.R.S. §§ 37-90-137(4) and (10).
- 13.4 In the event that the allowed average annual amounts decreed herein are adjusted pursuant to the retained jurisdiction of the Court, Applicants shall obtain permits to reflect such adjusted average annual amounts. Subsequent permits for any wells herein shall likewise reflect any such adjustment of the average annual amounts decreed herein.

14. Conditions for Well Operation and Construction:

For each well constructed pursuant to this decree, Applicants shall comply with the following conditions:

- 14.1 A totalizing flow meter shall be installed on the well discharge pipe prior to withdrawing any water therefrom, and shall be maintained and operational at all times for the life of the well. Applicants shall keep accurate records of all withdrawals by the well, make any calculations necessary, and submit such records to the Water Division 1 Engineer upon request.
- 14.2 The entire length of the open bore hole shall be geophysically surveyed prior to casing and copies of the geophysical log submitted to the Division of Water Resources. Applicants may provide a geophysical log from an adjacent well or test hole, pursuant to Rule 9A of the Statewide Rules and acceptable to the State Engineer, which fully penetrates the aquifer, in satisfaction of the above requirement.
- 14.3 Groundwater production shall be limited to the specific identified aquifer. Plain, unperforated casing must be installed and properly grouted to prevent withdrawal from or intermingling of water from zones other than those for which the well was designed.

- 14.4 Each well shall be permanently identified by its permit number, this Water Court Case Number, and the name of the producing aquifer on the above-ground portion of the well casing or on the pump house.

### **PLAN FOR AUGMENTATION**

15. Plan for Augmentation:

- 15.1 Water to be Augmented: 2.25 acre-feet per year for 300 years of not-nontributary Dawson Aquifer groundwater decreed herein.
- 15.2 Water to be Used for Augmentation: Return flows associated with use of the not-nontributary Dawson Aquifer groundwater and return flows or direct discharge of nontributary groundwater decreed herein.
- 15.3 The Dawson Aquifer groundwater will be used to serve up to three (3) individual wells. Each well will serve one (1) single-family residence (0.3 acre-feet per year), irrigation, including lawn, garden, trees, and use in greenhouses of up to 8,000 square-feet (0.4 acre-feet per year), watering of up to 4 large domestic animals (0.05 acre-feet) (0.75 acre-feet per well per year), through new wells. Conservatively, water use in single-family dwellings will equal at least 0.2 acre-feet of water annually for in-house uses, and that use of non-evaporative septic systems typically results in consumption of approximately 10% of such use, resulting in return flows of at least 0.18 acre-feet per year from each single-family residence, 0.54 acre-feet per year total. Various components of this plan for augmentation are predicated on these estimations, and Applicants shall be required to use a non-evaporative septic system to treat and dispose of water used for in-house use.
- 15.4 Replacement During Pumping: During pumping of the Dawson Aquifer groundwater, Applicants will replace actual depletions to the affected stream system pursuant to C.R.S. § 37-90-137(9)(c.5). In the 300th year, the total depletion is 22.22% of the amount withdrawn or 0.50 acre-feet total. Return flow from in-house use of the Dawson Aquifer groundwater for the residences is at least 0.54 acre-feet per year as described above and such return flow from use in the residences is sufficient to replace actual depletions for pumping of the entire 2.25 acre-feet per year for 300 years. Return flows accrue to the South Platte River system via Cherry Creek. Because return flows from all uses are estimated rather than measured, Applicants agree that such return flows shall be used only to replace depletions under this plan for augmentation and will not be sold, leased, traded, or assigned in whole or in part for any other purpose.
- 15.5 Post-pumping Depletion Augmentation: Assuming maximum pumping of 2.25 acre-feet per year for 300 years from the Dawson Aquifer, the maximum total depletion to the affected stream systems is approximately 22.35% of the annual

amount withdrawn or 0.503 acre-feet in the 301st year. Applicants will reserve 2.25 acre-feet per year, 675 acre-feet total, of the nontributary Laramie-Fox Hills aquifer groundwater decreed herein for use in this plan, but reserve the right to substitute the use of other nontributary groundwater, including return flows, either underlying the Subject Property, or from another location which is legally available for such purpose, for replacement of post-pumping depletions at such time that post-pumping depletions may begin. If necessary, the Applicants, or successors in interest, will apply for the necessary well permit and drill a post-pumping augmentation well. The Court retains continuing jurisdiction in this matter to determine if the supply is adequate.

- 15.6 Applicants will begin making post pumping replacements when (1) the absolute amount of water (675 acre-feet of Dawson Aquifer groundwater) allowed to be withdrawn has been withdrawn from the well(s), (2) the Applicants or successors in interest have acknowledged in writing that all withdrawals for beneficial use of the Dawson Aquifer groundwater has permanently ceased, or (3) for a period of 10 consecutive years that no Dawson Aquifer groundwater has been withdrawn. Until such time as the post pumping depletions begin the Applicants must continue to replace during pumping depletions to the stream using return flows, by pumping water directly to the stream to replace such depletions or using another replacement source approved by the Division Engineer. At the time that post pumping depletions begin as described in this paragraph, Applicants or successors in interest will be required to construct a well and pump groundwater to replace post-pumping depletions, subject to the terms and conditions of Paragraph 15.5. This condition constitutes a covenant running with the land.
- 15.7 Applicants will replace post-pumping depletions for the shortest of the following periods: (1) The period provided by C.R.S. § 37-90-137(9)(c.5), or (2) the expressed period specified by the Colorado Legislature, should it specify one and providing the Applicants obtain Water Court approval for such modification, or (3) the period determined by the State Engineer, should they choose to set such a period and have jurisdiction to do so, or (4) the period established through rulings of the Colorado Supreme Court on relevant cases, or (5) until Applicants' petitions the Water Court and the State Engineer's Office and prove that they have complied with any statutory requirement.
16. Failure of Applicants or successors in interest to comply with the terms of the decree may result in an order of the Division Engineer's office to curtail or eliminate pumping of the well. This decree shall be recorded in the real property records of El Paso County so that a title examination of the property, or any part thereof, shall reveal to all future purchasers the existence of this decree.

17. Administration of Plan for Augmentation:

- 17.1 Applicants shall report to the Division Engineer for Water Division 1 upon request, a summary of the amount of water pumped by each Denver Basin well, the annual depletion, the amount of replacement water provided by each replacement source, the net impact on the stream and any other information required by the Division Engineer to properly administer the decree on an accounting form acceptable to the Division Engineer.
- 17.2 All withdrawals which are the subject of this decree will be metered.
- 17.3 Pursuant to C.R.S. § 37-92-305(8), the State Engineer shall curtail all out-of-priority diversions, the depletions from which are not so replaced as to prevent injury to vested water rights.
- 17.4 The Applicants or successors in interest at the direction of the Division Engineer shall make post-pumping replacements to the South Platte River stream system via Cherry Creek, or its tributaries, pursuant to the amounts referenced on the depletion curve attached on **Exhibit B**.

18. Retained Jurisdiction for Plan for Augmentation:

- 18.1 Pursuant to C.R.S. § 37-92-304(6), the Court retains continuing jurisdiction over the plan for augmentation decreed herein for reconsideration of the question whether the provisions of this decree are necessary and/or sufficient to prevent injury to vested water rights of others. The Court also has jurisdiction for the purposes of determining compliance with the terms of the augmentation plan.
- 18.2 Any party seeking to invoke the retained jurisdiction of the Court shall file a verified petition with the Court. The petition to invoke retained jurisdiction or to modify this decree shall set forth with particularity the factual basis and the requested decretal language to effect the petition. The party lodging the petition shall have the burden of going forward to establish prima facie facts alleged in the petition. If the Court finds those facts to be established, Applicants shall thereupon have the burden of proof to show: (1) that any modification sought by Applicants will avoid injury to other appropriators, or (2) that any modification sought by Objector is not required to avoid injury to other appropriators, or (3) that any term or condition proposed by Applicants in response to the objector's petition does avoid injury to other appropriators.
- 18.3 The Court retains jurisdiction for the purpose of determining whether the continued reservation of the nontributary water for use on the Subject Property is required. After notice to the State Engineer's Office, if Applicants can demonstrate to the Court that post-pumping depletions need no longer be replaced, the Court may remove the requirement that the nontributary water must be reserved.

## **CONCLUSIONS OF LAW**

19. Full and adequate notice of the application was given, and the Court has jurisdiction over the subject matter and over the parties whether they have appeared or not.
20. Applicants have complied with all requirements and met all standards and burdens of proof, including but not limited to C.R.S. §§ 37-90-137(9)(c.5), 37-92-103(9), 37-92-302, 37-92-304(6), 37-92-305(3), (4), (6), (8), to adjudicate the plan for augmentation and are entitled to a decree confirming and approving the plan for augmentation as described in the Findings of Fact.
21. The Water Court has jurisdiction over this proceeding pursuant to C.R.S. § 37-90-137(6). This Court concludes as a matter of law that the application herein is one contemplated by law pursuant to C.R.S. § 37-90-137(4). The application for a decree confirming Applicants' right to withdraw and use all unappropriated groundwater from the nontributary aquifer beneath the Subject Property as described herein pursuant to C.R.S. § 37-90-137(4), should be granted, subject to the provisions of this decree. The application for a decree confirming Applicants' right to withdraw and use groundwater decreed herein from the Dawson Aquifer should be granted pursuant to C.R.S. §§ 37-90-137(4) and (9)(c.5), subject to the provisions of this decree. The withdrawal of up to 2.25 acre-feet per year (675 acre-feet total) of the Dawson Aquifer groundwater, and in accordance with the terms of this decree, will not injuriously affect the owner of or persons entitled to use water under a vested water right or a decreed conditional water right. The remaining amount of Dawson Aquifer groundwater decreed herein will not be withdrawn and used until it is included in a separate plan for augmentation.

## **JUDGMENT AND DECREE**

22. The Findings of Fact and Conclusions of Law set forth above are hereby incorporated into the terms of this Ruling and Decree as if the same were fully set forth herein.
23. Applicants and/or successors may withdraw the subject groundwater herein through wells to be permitted by the State Engineer's Office located anywhere on the Subject Property in the average annual amounts and at the estimated average rates of flow specified herein, subject to the limitations herein and the retained jurisdiction by this Court.
24. The groundwater rights described in the Findings of Fact are hereby approved, confirmed and adjudicated, including and subject to the terms and conditions specified herein. No owners of or persons entitled to use water under a vested water right or decreed conditional water right will be injured or injuriously affected by the pumping of Applicants' groundwater resources as decreed herein.
25. Pursuant to C.R.S. § 37-92-305(5), the replacement water herein shall be of a quality so as to meet the requirements for which the water of the senior appropriator has normally used.

26. The plan for augmentation as described in the Findings of Fact is hereby approved, confirmed, and adjudicated, including and subject to the terms and conditions specified herein.
27. No owners of or person entitled to use water under a vested water right or decreed conditional water right will be injured or injuriously affected by the operation of the plan for augmentation as decreed herein.
28. Retained Jurisdiction:
  - 28.1 The Court retains jurisdiction as necessary to adjust the average annual amounts of groundwater available under the Subject Property to conform to actual local aquifer characteristics as determined from adequate information obtained from wells, pursuant to C.R.S. § 37-92-305(11). Within 60 days after completion of any well decreed herein or any test hole(s), Applicants or any successor in interest to these water rights shall serve copies of such log(s) upon the State Engineer.
  - 28.2 At such time as adequate data is available, any person, including the State Engineer, may invoke the Court's retained jurisdiction to make a Final Determination of Water Right. Within four months of notice that the retained jurisdiction for such purpose has been invoked, the State Engineer shall use the information available to him to make a final determination of water rights findings. The State Engineer shall submit such finding to the Water Court and the Applicants.
  - 28.3 If no protest to such finding is made within 60 days, the Final Determination of Water Rights shall be incorporated into the decree by the Water Court. In the event of a protest, or in the event the State Engineer makes no determination within four months, such final determination shall be made by the Water Court after notice and hearing.
29. Continuing Jurisdiction: Pursuant to C.R.S. § 37-92-304(6), the Court retains continuing jurisdiction over the plan for augmentation decreed herein for reconsideration by the water judge on the question of injury to the vested rights of others for such period after the entry of such decision as is necessary or desirable to preclude or remedy any such injury.
30. The groundwater rights decreed herein are vested property rights appurtenant to the Subject Property and shall remain appurtenant unless expressly severed by conveyance to someone other than the property owner. If any deed for the Subject Property is silent to the conveyance of the water rights decreed herein, it is assumed that the water rights have been conveyed as an appurtenance to the Subject Property, unless all or part of the water rights have been previously severed.

31. After the referee ruling was entered in this case on February 10, 2022, a typographical error was discovered in paragraph 16. Elbert County was corrected to El Paso County. The referee finds that this amendment does not require an extension of the protest period.

Date: February 10, 2022



John S. Cowan  
Water Referee  
Water Division One

The Court finds that no protest was filed in this matter. The foregoing is confirmed and is made the judgment and decree of this Court.

Date: March 11, 2022

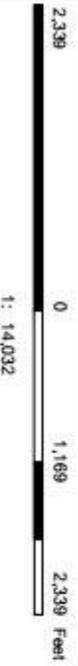
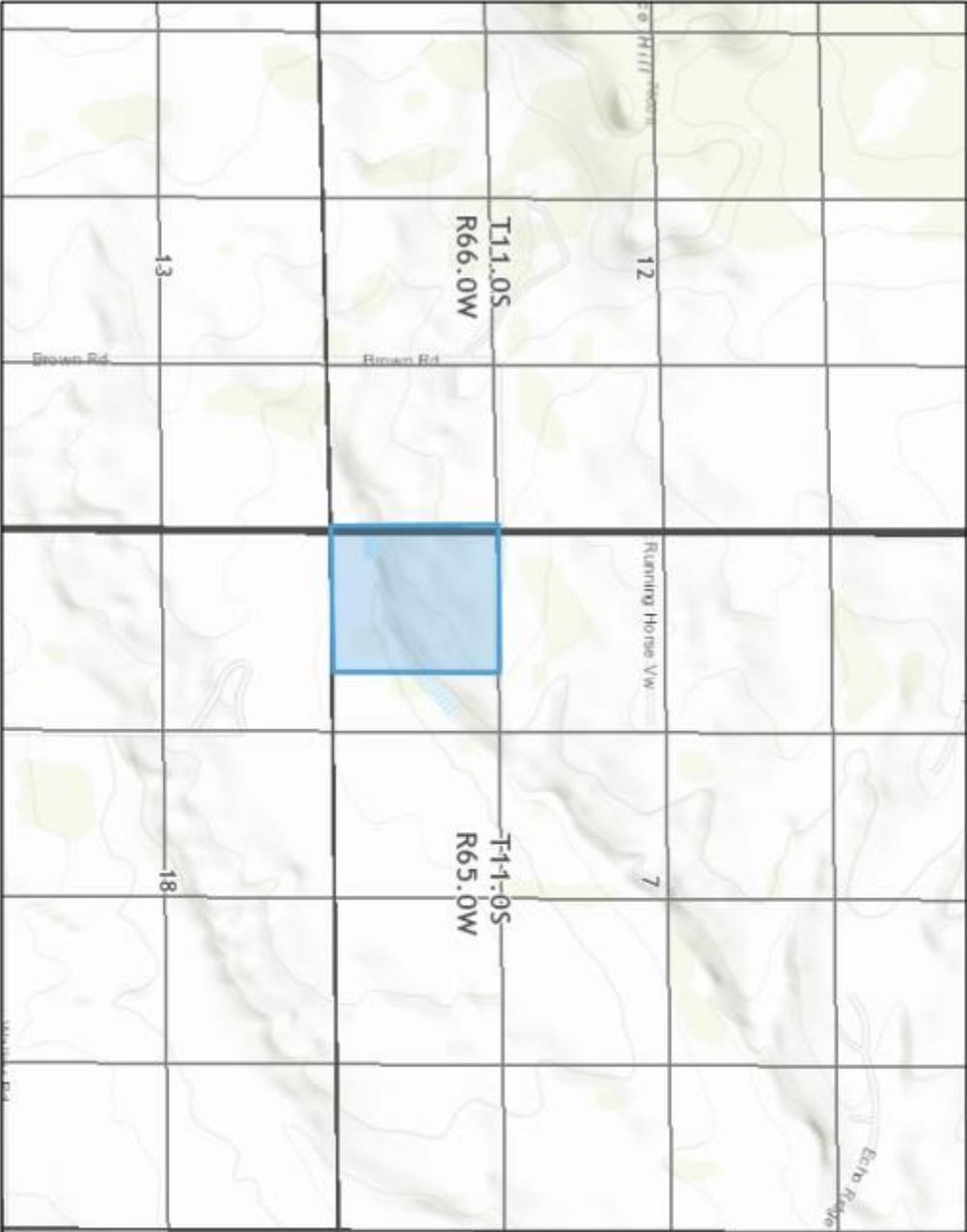


Todd L. Taylor  
Water Judge  
Water Division One



**COLORADO'S**  
Decision Support Systems  
CWCB / DWR

### Exhibit A - Map of Boyd Property



This product is for informational purposes and may not have been prepared by a registered professional engineer, architect, or surveyor. Users of this information should review or consult the primary data and information sources to ascertain the quality of the information.

Date Prepared: 8/30/2021 10:58:19 AM

- Legend**
- Township
  - Section
  - Q40
  - County

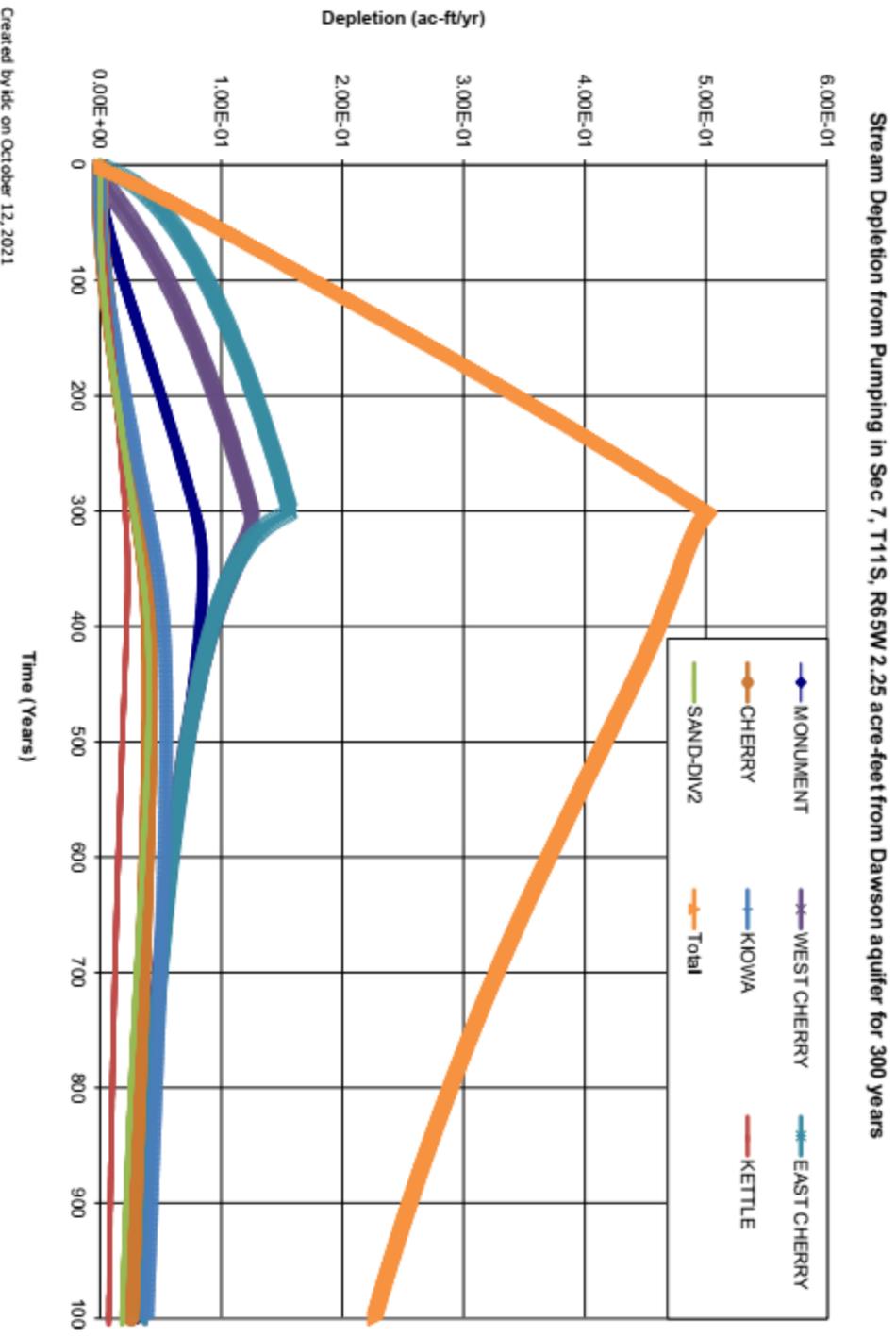


**Notes**

18735 Brown Road  
Colorado Springs, CO 80908

Boyd  
21CW3156

EXHIBIT A

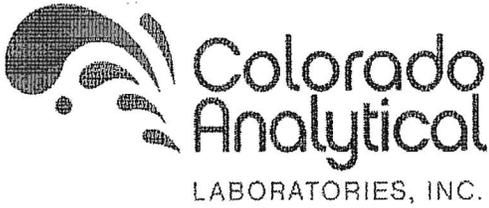


Boyd  
21CW3156

# WATER SUPPLY INFORMATION SUMMARY

Section 30-28-133(d), C.R.S. requires that the applicant submit to the County, "Adequate evidence that a water supply that is sufficient in terms of quantity, quality and dependability will be available to ensure an adequate supply of water.

1. NAME OF DEVELOPMENT AS PROPOSED Boyd Subdivision Filing No. 1			
2. LAND USE ACTION Final Plat			
3. NAME OF EXISTING PARCEL AS RECORDED N/A			
SUBDIVISION	FILING	BLOCK	LOT
4. TOTAL ACREAGE 35.88	5. NUMBER OF LOTS PROPOSED 3	PLAT MAP ENCLOSED <input checked="" type="checkbox"/> YES	
6. PARCEL HISTORY - Please attach copies of deeds, plats or other evidence or documentation.			
A. Was parcel recorded with county prior to June 1, 1972? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
B. Has the parcel ever been part of a division of land action since June 1, 1972? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
If yes, describe the previous action _____			
7. LOCATION OF PARCEL - Include a map delimiting the project area and tie to a section corner.			
SW 1/4 OF SW 1/4 SECTION 7 TOWNSHIP 11 <input type="checkbox"/> N <input checked="" type="checkbox"/> S RANGE 65 <input type="checkbox"/> E <input checked="" type="checkbox"/> W			
PRINCIPAL MERIDIAN: <input checked="" type="checkbox"/> 6TH <input type="checkbox"/> N.M. <input type="checkbox"/> UTE <input type="checkbox"/> COSTILLA			
8. PLAT - Location of all wells on property must be plotted and permit numbers provided. N/A			
Surveyors plat <input type="checkbox"/> Yes <input type="checkbox"/> No If not, scaled hand drawn sketch <input type="checkbox"/> Yes <input type="checkbox"/> No			
9. ESTIMATED WATER REQUIREMENTS - Gallons per Day or Acre Feet per Year		10. WATER SUPPLY SOURCE	
(3 units at 0.3 acre-ft/yr each) HOUSEHOLD USE # 3 of units _____ GPD 0.9 AF		<input type="checkbox"/> EXISTING WELLS <input type="checkbox"/> DEVELOPED SPRING WELL PERMIT NUMBERS _____ _____	<input checked="" type="checkbox"/> NEW WELLS - PROPOSED AQUIFERS - (CHECK ONE) <input type="checkbox"/> ALLUVIAL <input type="checkbox"/> UPPER ARAPAHOE <input type="checkbox"/> UPPER DAWSON <input type="checkbox"/> LOWER ARAPAHOE <input type="checkbox"/> LOWER DAWSON <input type="checkbox"/> LARAMIE FOX HILLS <input type="checkbox"/> DENVER <input type="checkbox"/> DAKOTA <input checked="" type="checkbox"/> OTHER <u>Dawson</u>
(3 units at 8,000 sf irrigation at 0.05 acre-ft/1,000 sf/yr each) IRRIGATION # 0.55 of acres _____ GPD 1.2 AF			
(12 heads at 0.0125 acre-ft/yr each) STOCK WATERING # 12 of head _____ GPD 0.15 AF		<input type="checkbox"/> MUNICIPAL <input type="checkbox"/> ASSOCIATION <input type="checkbox"/> COMPANY <input type="checkbox"/> DISTRICT NAME _____ LETTER OF COMMITMENT FOR SERVICE <input type="checkbox"/> YES <input type="checkbox"/> NO	WATER COURT DECREE CASE NO.'S Div. 1 2021CW3156 (Consolidated with Div. 2 2021CW3041)
OTHER _____ GPD _____ AF			
TOTAL _____ GPD 2.25 AF			
11. ENGINEER'S WATER SUPPLY REPORT <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, PLEASE FORWARD WITH THIS FORM. (This may be required before our review is completed.)			
12. TYPE OF SEWAGE DISPOSAL SYSTEM			
<input checked="" type="checkbox"/> SEPTIC TANK/LEACH FIELD		<input type="checkbox"/> CENTRAL SYSTEM - DISTRICT NAME _____	
<input type="checkbox"/> LAGOON		<input type="checkbox"/> VAULT - LOCATION SEWAGE HAULED TO _____	
<input type="checkbox"/> ENGINEERED SYSTEM (Attach a copy of engineering design)		<input type="checkbox"/> OTHER _____	



**Quotation for Analytical Services**

Quote ID: QBO20090077

**Prepared For:** Monument Valley Engineers - MVE Ci  
1903 Lelaray St

**Quote Date:** Thursday, September 24, 2020  
**Turn Around Time:** 10 Working Days

Colorado Springs, CO 80909

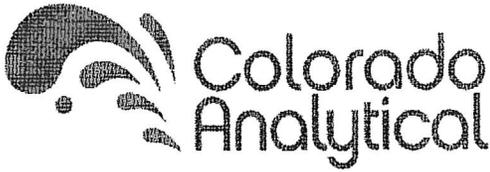
**Attn:** David R Gorman, P.E.

**CAL Task**  
201001048

**Project:**

DEW

Matrix	Description	Method	Qty	Price - each	Total
Water - Drinking	Langelier Index	N/A	1	\$57.00	\$57.00
Water - Drinking	Alkalinity	SM 2320-B	1	Incl.	Incl.
Water - Drinking	Ca as CaCO3	EPA 200.7	1	Incl.	Incl.
Water - Drinking	Carb/ Bicarb	SM 2320-B	1	Incl.	Incl.
Water - Drinking	Lang Index	SM 2330-B	1	Incl.	Incl.
Water - Drinking	pH/ Temp	SM 4500-H-B	1	Incl.	Incl.
Water - Drinking	TDS	SM 2540-C	1	Incl.	Incl.
Water - Drinking	Nitrate/ Nitrite Nitrogen	Calculation	1	\$0.00	\$0.00
Water - Drinking	Fe - Total	EPA 200.7	1	\$12.00	\$12.00
Water - Drinking	Ag - Total	EPA 200.8	1	\$15.00	\$15.00
Water - Drinking	Al - Total	EPA 200.8	1	\$15.00	\$15.00
Water - Drinking	As - Total	EPA 200.8	1	\$15.00	\$15.00
Water - Drinking	Ba - Total	EPA 200.8	1	\$15.00	\$15.00
Water - Drinking	Be - Total	EPA 200.8	1	\$15.00	\$15.00
Water - Drinking	Cd - Total	EPA 200.8	1	\$15.00	\$15.00
Water - Drinking	Cr - Total	EPA 200.8	1	\$15.00	\$15.00
Water - Drinking	Hg	EPA 200.8	1	\$15.00	\$15.00
Water - Drinking	Mn - Total	EPA 200.8	1	\$15.00	\$15.00
Water - Drinking	Sb - Total	EPA 200.8	1	\$15.00	\$15.00
Water - Drinking	Se - Total	EPA 200.8	1	\$15.00	\$15.00
Water - Drinking	Tl - Total	EPA 200.8	1	\$15.00	\$15.00
Water - Drinking	Zn - Total	EPA 200.8	1	\$15.00	\$15.00
Water - Drinking	Chloride	EPA 300.0	1	\$17.00	\$17.00
Water - Drinking	Nitrate Nitrogen	EPA 300.0	1	\$17.00	\$17.00
Water - Drinking	Nitrite Nitrogen	EPA 300.0	1	\$17.00	\$17.00
Water - Drinking	Sulfate	EPA 300.0	1	\$17.00	\$17.00
Water - Drinking	Fluoride	EPA 300.0	1	\$18.00	\$18.00
Water - Drinking	Total Coliform P/A	SM 9223	1	\$23.00	\$23.00
Water - Drinking	Cyanide-Total	EPA 335.4	1	\$38.00	\$38.00
Water - Drinking	Gross Alpha/Beta (Sub)	SM 7110-B	1	\$56.16	\$56.16
Water - Drinking	Radium 226 (Sub)	SM 7500-Ra B	1	\$75.60	\$75.60



**Quotation for Analytical Services**

Quote ID: QBO20090077

LABORATORIES, INC.

Water - Drinking	Radium 228 (Sub)	EPA Ra-05	1	\$118.80	\$118.80
Shipping	Cooler Shipment - UPS	UPS	1	\$10.00	\$10.00
Shipping	Sample Shipment to Outside Lab	UPS	1	\$30.00	\$30.00

**CAL Task** \_\_\_\_\_  
**201001048** **\$701.56**

**DEW**

Colorado Analytical Laboratory maintains certification by the Colorado Department of Health (CDPHE) and EPA Region 8 for Wyoming and Tribal Public Water Systems to analyze drinking water for organic contaminants (SOC's VOC's), inorganic contaminants (metals), nitrate nitrite, cyanide, fluoride and coliform bacteria.

Sub-Contract analysis pricing subject to change. Sub-Contract radiological analysis turn-around time is 4 to 8 weeks depending on sample matrix.

Billing terms are Net 30 on approved accounts, all other accounts are COD. Additional charges may apply for accelerated turn around.

We appreciate the opportunity to be of service to you. If you have questions please call us at 303-659-2313 or visit us at [www.coloradolab.com](http://www.coloradolab.com)

## Drinking Water Chain of Custody

<b>Report To Information</b>	<b>Bill To Information (If different from report to)</b>	<b>Project Information</b>
Company Name: <u>MVE INC</u>	Company Name: _____	PWSID: _____
Contact Name: <u>DAVE GORMAN</u>	Contact Name: _____	System Name: _____
Address: <u>1903 LELAND ST STE 200</u>	Address: _____	Compliance Samples: Yes <input type="checkbox"/> No <input type="checkbox"/>
City: <u>C/S</u> State: <u>CO</u> Zip: <u>80909</u>	City: _____ State: _____ Zip: _____	Send Results to CDPHE: Yes <input type="checkbox"/> No <input type="checkbox"/>
Phone: <u>719-635-5736</u>	Phone: _____	Task Number (Lab Use Only) <b>CAL Task</b> <b>201001048</b>  <b>DEW</b>
Email: <u>DAVEG@MVECIVIL.COM</u>	Email: _____	
Sample Collector: <u>TOM WENDLAND</u>	Sample Collector: _____	
Sample Collector Phone: <u>719-635-5736</u>	PO Number: _____	

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			PHASE I, II, V Drinking Water Analyses (check requested analysis)																			
Date	Time	Client Sample ID / Sample Pt ID	No. of Containers	Residual Chlorine (mg/L) P/A Samples Only	Total Coliform P/A	504.1 EDB/DBCP	505 Pests/PCBs	515.4 Herbicides	524.2 VOCs	525.2 SOCs-Pest	531.1 Carbamates	547 Glyphosate	548.1 Endothal	549.2 Diquat	524.2 TTHMs	552.2 HAA5s	Lead/Copper	Nitrate	Nitrite	Fluoride	Inorganics	
10/1	1015	Prarie Bridge																				

<b>Instructions:</b> <u>QB020090077</u> sample ID, date, + time taken from bottle labels <i>DEW</i>	<b>C/S Info:</b> Delivered Via: <u>HD</u>	<b>Seals Pre:</b> <u>5</u>
<b>Relinquished By:</b> <u>[Signature]</u>	<b>Date/Time:</b> <u>10/1 10:30</u>	<b>Received By:</b> <u>[Signature]</u>
<b>Date/Time:</b> <u>10/1 10:15</u>	<b>Relinquished By:</b> <u>[Signature]</u>	<b>Date/Time:</b> _____

**Analytical Results**

**TASK NO: 201001048**

**Report To:** David R Gorman, P.E.

**Company:** Monument Valley Engineers - MVE Civil  
1903 Lelaray St  
Colorado Springs CO 80909

**Bill To:** David R Gorman, P.E.

**Company:** Monument Valley Engineers - MVE Ci  
1903 Lelaray St  
Colorado Springs CO 80909

**Task No.:** 201001048  
**Client PO:**  
**Client Project:**

**Date Received:** 10/1/20  
**Date Reported:** 10/9/20  
**Matrix:** Water - Drinking

Lab Number	Customer Sample ID	Sample Date/Time	Test	Result	Method	Date Analyzed
201001048-01C	Prarie Ridge	10/1/20 10:15 AM	Total Coliform	<b>Absent</b>	SM 9223	10/2/20
			E-Coli	<b>Absent</b>	SM 9223	10/2/20

**Abbreviations/ References:**

Absent = Coliform Not Detected  
Present = Coliform Detected - Chlorination Recommended  
Date Analyzed = Date Test Completed  
SM = "Standard Methods for the Examination of Water and Wastewater"; APHA; 19th Edition; 1995



DATA APPROVED FOR RELEASE BY

**Analytical Results**

**TASK NO: 201001048**

**Report To:** David R Gorman, P.E.

**Company:** Monument Valley Engineers - MVE Civil  
1903 Lelaray St  
Colorado Springs CO 80909

**Bill To:** David R Gorman, P.E.

**Company:** Monument Valley Engineers - MVE Ci  
1903 Lelaray St  
Colorado Springs CO 80909

**Task No.:** 201001048  
**Client PO:**  
**Client Project:**

**Date Received:** 10/1/20  
**Date Reported:** 10/9/20  
**Matrix:** Water - Drinking

**Customer Sample ID** Prarie Ridge

**Sample Date/Time:** 10/1/20 10:15 AM

**Lab Number:** 201001048-01

Test	Result	Method	ML	Date Analyzed	Analyzed By
Bicarbonate	48.9 mg/L as CaCO3	SM 2320-B	4	10/2/20	ECM
Calcium as CaCO3	32.3 mg/L	EPA 200.7	0.1	10/6/20	MBN
Carbonate	< 4 mg/L as CaCO3	SM 2320-B	4	10/2/20	ECM
Hydroxide	< 4 mg/L as CaCO3	SM 2320-B	4	10/2/20	ECM
Langelier Index	-1.72 units	SM 2330-B		10/7/20	SAN
pH	6.86 units	SM 4500-H-B	0.01	10/1/20	MBN
Temperature	20 °C	SM 4500-H-B	1	10/1/20	MBN
Total Alkalinity	48.9 mg/L as CaCO3	SM 2320-B	4	10/2/20	ECM
Total Dissolved Solids	120 mg/L	SM 2540-C	5	10/6/20	ISG

**Abbreviations/ References:**

ML = Minimum Level = LRL = RL  
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

**Analytical Results**

**TASK NO: 201001048**

**Report To:** David R Gorman, P.E.

**Company:** Monument Valley Engineers - MVE Civil  
1903 Lelaray St  
Colorado Springs CO 80909

**Bill To:** David R Gorman, P.E.

**Company:** Monument Valley Engineers - MVE Ci  
1903 Lelaray St  
Colorado Springs CO 80909

**Task No.:** 201001048  
**Client PO:**  
**Client Project:**

**Date Received:** 10/1/20  
**Date Reported:** 10/9/20  
**Matrix:** Water - Drinking

**Customer Sample ID** Prarie Ridge  
**Sample Date/Time:** 10/1/20 10:15 AM  
**Lab Number:** 201001048-01

Test	Result	Method	ML	Date Analyzed	Analyzed By	MCL
Nitrate/ Nitrite Nitrogen	1.67 mg/L	Calculation	0.05 mg/L	10/6/20	MAT	
Chloride	2.0 mg/L	EPA 300.0	0.1 mg/L	10/2/20	MAT	
Fluoride	0.18 mg/L	EPA 300.0	0.09 mg/L	10/2/20	MAT	4
Nitrate Nitrogen	1.67 mg/L	EPA 300.0	0.05 mg/L	10/2/20	MAT	10
Nitrite Nitrogen	< 0.03 mg/L	EPA 300.0	0.03 mg/L	10/2/20	MAT	1
Sulfate	4.5 mg/L	EPA 300.0	0.1 mg/L	10/2/20	MAT	
Cyanide-Total	< 0.005 mg/L	EPA 335.4	0.005 mg/L	10/5/20	CES	0.02
<b>Total</b>						
Iron	< 0.005 mg/L	EPA 200.7	0.005 mg/L	10/6/20	MBN	0.3
Aluminum	0.003 mg/L	EPA 200.8	0.001 mg/L	10/2/20	IPC	0.05
Antimony	< 0.0012 mg/L	EPA 200.8	0.0012 mg/L	10/2/20	IPC	0.006
Arsenic	< 0.0006 mg/L	EPA 200.8	0.0006 mg/L	10/2/20	IPC	0.01
Barium	0.0655 mg/L	EPA 200.8	0.0007 mg/L	10/2/20	IPC	2
Beryllium	0.0001 mg/L	EPA 200.8	0.0001 mg/L	10/2/20	IPC	0.004
Cadmium	< 0.0001 mg/L	EPA 200.8	0.0001 mg/L	10/2/20	IPC	0.005
Chromium	< 0.0015 mg/L	EPA 200.8	0.0015 mg/L	10/2/20	IPC	0.1
Manganese	< 0.0008 mg/L	EPA 200.8	0.0008 mg/L	10/2/20	IPC	0.05
Mercury	< 0.0000 mg/L	EPA 200.8	0.0000 mg/L	10/6/20	MLT	0.002
Selenium	0.0012 mg/L	EPA 200.8	0.0008 mg/L	10/2/20	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

**Analytical Results**

**TASK NO: 201001048**

**Report To:** David R Gorman, P.E.

**Company:** Monument Valley Engineers - MVE Civil  
1903 Lelaray St  
Colorado Springs CO 80909

**Bill To:** David R Gorman, P.E.

**Company:** Monument Valley Engineers - MVE Ci  
1903 Lelaray St  
Colorado Springs CO 80909

**Task No.:** 201001048  
**Client PO:**  
**Client Project:**

**Date Received:** 10/1/20  
**Date Reported:** 10/9/20  
**Matrix:** Water - Drinking

**Customer Sample ID** Prarie Ridge  
**Sample Date/Time:** 10/1/20 10:15 AM  
**Lab Number:** 201001048-01

Test	Result	Method	ML	Date Analyzed	Analyzed By	MCL
<i>Total</i>						
Silver	< 0.0005 mg/L	EPA 200.8	0.0005 mg/L	10/2/20	IPC	
Thallium	< 0.0002 mg/L	EPA 200.8	0.0002 mg/L	10/2/20	IPC	0.002
Zinc	0.006 mg/L	EPA 200.8	0.001 mg/L	10/2/20	IPC	5

**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



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

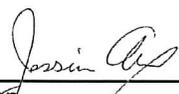
Lab Control ID: 20M02854  
Received: Oct 05, 2020  
Reported: Nov 17, 2020  
Purchase Order No.  
None Received

Customer ID: 20040H  
Account ID: Z01034

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 Axer  
Analytical Laboratories Director



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

Lab Control ID: 20M02854  
 Received: Oct 05, 2020  
 Reported: Nov 17, 2020  
 Purchase Order No.  
 None Received

Customer ID: 20040H  
 Account ID: Z01034

**ANALYTICAL REPORT**

Stuart Nielson  
 Colorado Analytical Laboratories, Inc.

<b>Lab Sample ID</b>			20M02854-001					
<b>Customer Sample ID</b>			201001059-01 - Prarie Ridge sampled on 10/01/20 @ 1015					
<b>Parameter</b>	<b>Units</b>	<b>Code</b>	<b>Result</b>	<b>Precision* +/-</b>	<b>Detection Limit</b>	<b>Method</b>	<b>Analysis Date / Time</b>	<b>Analyst</b>
Gross Alpha	pCi/L	T	2.1	1.9	0.1	SM 7110 B	10/7/20 @ 0852	KT
Gross Beta	pCi/L	T	6.1	2.4	3.8	SM 7110 B	10/7/20 @ 0852	KT
Radium-226	pCi/L	T	NR	-	-	SM 7500-Ra B	-	-
Radium-228	pCi/L	T	NR	-	-	EPA Ra-05	-	-

NR - Not Requested - Analysis not requested on this sample.

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



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

Lab Control ID: 20M02854  
 Received: Oct 05, 2020  
 Reported: Nov 17, 2020  
 Purchase Order No.  
 None Received

Customer ID: 20040H  
 Account ID: Z01034

**ANALYTICAL REPORT**

Stuart Nielson  
 Colorado Analytical Laboratories, Inc.

<b>Lab Sample ID</b>			20M02854-002					
<b>Customer Sample ID</b>			201001059-01A - Prarie Ridge sampled on 10/01/20 @ 1015					
<b>Parameter</b>	<b>Units</b>	<b>Code</b>	<b>Result</b>	<b>Precision* +/-</b>	<b>Detection Limit</b>	<b>Method</b>	<b>Analysis Date / Time</b>	<b>Analyst</b>
Gross Alpha	pCi/L	T	NR	-	-	SM 7110 B	-	-
Gross Beta	pCi/L	T	NR	-	-	SM 7110 B	-	-
Radium-226	pCi/L	T	0.9	0.3	0.1	SM 7500-Ra B	11/6/20 @ 0938	AS
Radium-228	pCi/L	T	3.5	1.0	0.3	EPA Ra-05	10/19/20 @ 1158	JR

NR - Not Requested - Analysis not requested on this sample.

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

**Batch QC Summary Form**

Analyte: Gross Alpha

Control Standard/LFB: ID: C-11 pCi/mL: 57.4 (use 1 diluted)

Spike Solution: ID: C-11 pCi/mL: 57.4 (use 1 mL)

Spike Recovery Calculation: Sample: Tap\*

$$\text{Calculation: } \frac{(59.2) (1.000) - (0.4) (0.200)}{57.4} \times 100 = 103\%$$

Batch QC Evaluation:

Parameter	Criteria	Pass	Fail	N/A
Control Std./LFB	+/- 30 %	x		
Spike Recovery	70 - 130 %	x		
Blank	< or = 3 x Uncertainty	x		
Duplicate 1	95% confidence interval overlap	x		
Duplicate 2 *	95% confidence interval overlap	x		

\* Required for batch size greater than 10 samples.

Conclusions:

    x Batch QC Passes\*\*  
           Batch QC Fails  
           Batch QC Passes, with exceptions\*\*:

Reruns Required: \_\_\_\_\_

Narrative:

\*\*All QC data provided in this section of the report met the acceptance criteria specified in the analytical methods and procedures. State Maximum Contamination Levels (MCLs) are not evaluated in this report.

Batch Listing by Lab Control Number:

<u>20M02829</u>	<u>20M02865</u>
<u>20M02835</u>	<u>20M02867</u>
<u>20M02854</u>	<u>20M02742</u>
<u>20M02855</u>	<u>20M02743</u>
<u>20M02859</u>	<u>20M02772</u>
<u>20M02860</u>	<u>20M02825</u>
<u>20M02861</u>	_____
<u>20M02862</u>	_____
<u>20M02863</u>	_____
<u>20M02864</u>	_____

Evaluator:

*Glynn Rockwell* \_\_\_\_\_

10/12/2020

Date

**Batch QC Summary Form**

Analyte: Gross Beta

Control Standard/LFB: ID: C-11 pCi/mL: 44 (use 1 diluted)

Spike Solution: ID: C-11 pCi/mL: 44 (use 1 mL)

Spike Recovery Calculation: Sample: Tap\*

$$\text{Calculation: } \frac{(38.3) (1.000) - (0.0) (0.200)}{44} \times 100 = 87\%$$

Batch QC Evaluation:

Parameter	Criteria	Pass	Fail	N/A
Control Std./LFB	+/- 20 %	x		
Spike Recovery	80 - 120 %	x		
Blank	< or = 3 x Uncertainty	x		
Duplicate 1	95% confidence interval overlap	x		
Duplicate 2 *	95% confidence interval overlap	x		

\* Required for batch size greater than 10 samples.

Conclusions:

    x Batch QC Passes\*\*  
       Batch QC Fails  
       Batch QC Passes, with exceptions\*\*:

Reruns Required: \_\_\_\_\_

Narrative:

\*\*All QC data provided in this section of the report met the acceptance criteria specified in the analytical methods and procedures. State Maximum Contamination Levels (MCLs) are not evaluated in this report.

Batch Listing by Lab Control Number:

<u>20M02829</u>	<u>20M02865</u>
<u>20M02835</u>	<u>20M02867</u>
<u>20M02854</u>	<u>20M02742</u>
<u>20M02855</u>	<u>20M02743</u>
<u>20M02859</u>	<u>20M02772</u>
<u>20M02860</u>	<u>20M02825</u>
<u>20M02861</u>	_____
<u>20M02862</u>	_____
<u>20M02863</u>	_____
<u>20M02864</u>	_____

Evaluator:

*Gynnes Rockwell* \_\_\_\_\_

10/12/2020

Date

**Batch QC Summary Form**

Analyte: Radium-226

Control Standard/LFB: ID: NBL-6A pCi/mL: 23 (use 2 diluted)

Spike Solution: ID: NBL-6A pCi/mL: 23 (use 2 mL)

Spike Recovery Calculation: Sample: 20M02807-002c

$$\text{Calculation: } \frac{(46.9) - (0.970) - (0.1)}{46} \times 100 = 99\%$$

Batch QC Evaluation:

Parameter	Criteria	Pass	Fail	N/A
Control Std./LFB	+/- 20 %	x		
Spike Recovery	80 - 120 %	x		
Blank	< or = 3 x Uncertainty	x		
Duplicate 1	95% confidence interval overlap	x		
Duplicate 2 *	95% confidence interval overlap			x

\* Required for batch size greater than 10 samples.

Conclusions:

  x Batch QC Passes\*\*  
       Batch QC Fails  
       Batch QC Passes, with exceptions\*\*:

Reruns Required: \_\_\_\_\_

Narrative:

\*\*All QC data provided in this section of the report met the acceptance criteria specified in the analytical methods and procedures. State Maximum Contamination Levels (MCLs) are not evaluated in this report.

Batch Listing by Lab Control Number:

20M02807 \_\_\_\_\_  
20M02829 \_\_\_\_\_  
20M02835 \_\_\_\_\_  
20M02841 \_\_\_\_\_  
20M02842 \_\_\_\_\_  
20M02854 \_\_\_\_\_  
20M02855 \_\_\_\_\_  
20M02856 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Evaluator:  
*Glynn Rockwell* \_\_\_\_\_

11/16/2020  
 \_\_\_\_\_  
 Date

**Batch QC Summary Form**

Analyte: Radium-228

Control Standard/LFB: ID: NBL-7A pCi/mL: 13.2 (use 10 diluted)

Spike Solution: ID: NBL-7A pCi/mL: 13.2 (use 10 mL)

Spike Recovery Calculation: Sample: 20M02871-001e

$$\text{Calculation: } \frac{(140.5) (1.000) - (1.7) (1.000)}{132} \times 100 = 105\%$$

Batch QC Evaluation:

Parameter	Criteria	Pass	Fail	N/A
Control Std./LFB	+/- 20 %	x		
Spike Recovery	80 - 120 %	x		
Blank	< or = 3 x Uncertainty	x		
Duplicate 1	95% confidence interval overlap	x		
Duplicate 2 *	95% confidence interval overlap			x

\* Required for batch size greater than 10 samples.

Conclusions:

  x Batch QC Passes\*\*  
       Batch QC Fails  
       Batch QC Passes, with exceptions\*\*:

Reruns Required: \_\_\_\_\_

Narrative:

\*\*All QC data provided in this section of the report met the acceptance criteria specified in the analytical methods and procedures. State Maximum Contamination Levels (MCLs) are not evaluated in this report.

Batch Listing by Lab Control Number:

20M02783 \_\_\_\_\_  
20M02784 \_\_\_\_\_  
20M02807 \_\_\_\_\_  
20M02829 \_\_\_\_\_  
20M02835 \_\_\_\_\_  
20M02854 \_\_\_\_\_  
20M02855 \_\_\_\_\_  
20M02871 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Evaluator:

*Gynnea Rockwell* \_\_\_\_\_

10/22/2020

Date

Sub-Lab Chain of Custody Form

20 mo?

<b>Report To Information</b> Company Name: <u>Colorado Analytical Laboratory</u> Report To: <u>Stuart Nielson</u> E-Mail: <u>stuartnielson@coloradolab.com</u>	<b>Bill To Information (If different from report to)</b>	<b>Project Name</b> -
<b>Address:</b> <u>10411 Heinz Way</u> <u>Commerce City, CO 80640</u>  Phone: <u>303-659-2313</u>	<b>Address:</b>	<b>CAL TASK</b> 201001059  DEW  <b>Compliance Samples:</b> Submit Data to CDPHE:

Tests Requested

Sample Date/Time	Sample ID	Matrix	Radium 226 (Sub)	Radium 228 (Sub)	Gross Alpha/Beta (Sub)
10/1/20 10:15 AM	201001059-01 - Prarie Ridge	Water - Drinking			
10/1/20 10:15 AM	201001059-01A - Prarie Ridge	Water - Drinking			

Comment:

Relinquished by: (Signature) <i>[Signature]</i>	Date: Time: 10/2/20 1000	Received by: (Signature) <i>[Signature]</i>	Date: Time: 10/2/20 1442	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)
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FedEx  
9128 4931 7369

Rec'd pres  
JK  
10/2/20