



**Sterling Ranch Metropolitan District 1**

**WATER RESOURCES  
For  
Retreat at TimberRidge Filing No. 2**

**Dated  
April 2021**

**Prepared By:**



**CONSULTANTS, INC.**

**Executive Summary:**  
**Water Resources and Wastewater Report—Overall Retreat at TimberRidge**  
**Updated April 30, 2021 for Filing No. 2**

Retreat at TimberRidge development by Arroya Investments consists of approximately 227 acres located east of Vollmer Rd and north of Woodmen Rd, in portions of Section 21, 22, 27 & 28, Township 12 South, Range 65 West of the 6<sup>th</sup> P.M. The land is to be provided water and sewer services through either the Sterling Ranch Metropolitan District (SRMD) or on-site individual wells and septic.

It is expected an urban residential home in Retreat at TimberRidge will require an average of 0.353 annual acre-feet. Rural residential homes in Retreat at TimberRidge will require an average of 0.32 annual acre-feet. This is consistent with historic needs for nearby developments.

The larger rural lots anticipated will be served by on-site single-family wells and septic. After considering water line layout, it was determined that larger rural lots 39, 40, and 41, could be easily provided for Central Water and would be better served on central water. For this reason, the overall Water Resources needed for the Retreat include 167 lots. The following augmentation plans are in place, or pending, to serve these lots.

- An augmentation plan (18CW3002-pending) relinquishes 2,796 acre-feet of Laramie Fox Hills NT water to augment the single family wells on in the Dawson NNT aquifer.

**The water available for the Central System from On-site sources is 42.76 annual acre-feet (on a 300 year basis). Therefore, the available supply will not meet the legal and physical needs of 167 residential homes (or single family equivalents) which is 58.95 annual acre-feet. An additional 16.19 annual acre-feet is required.**

The SRMD has committed to providing the additional water resources on a 300-year basis to make up the annual acre-foot shortfall from the District's overall sources of supply. The Arapahoe and LFH NT water available on Phase 1 of the Retreat at TimberRidge was not included in the currently available on-site supply in the SRMD commitment letter.

Additional NNT water may be made available if and when an augmentation plan is developed and approved. Certain other rights will be necessary in order to develop and augment this supply.

***Filing No 2 of Retreat at TimberRidge is wholly contained within the Overall Water Resources Report which has been updated here to include 78 urban style lots that will be served Central Water and Sewer from Sterling Ranch Metropolitan District and 12 large rural style lots provided water and sewer from wells and septic. Water Quality information for the wells was previously submitted to El Paso County Health Department and is included here.***

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## **SECTION 1 INTRODUCTION**

The purpose of this study is to provide a preliminary outline of the water resources and wastewater needs that would be necessary for Phase 1-6 of the Retreat at TimberRidge development.

This update is for Filing #2 including 78 urban lots being served Central Water and Sewer and 12 rural lots being served by Well and Septic.

### *1.1 New Development Description:*

Retreat at TimberRidge development consists of approximately 261 acres located east of Vollmer Rd and north of Woodmen Rd and approximately 7 acres west of Vollmer Rd allocated for Lots 11 and 12 owned by Jacob Decoto, Section 27 & 28, Township 12 South, Range 65 West of the 6<sup>th</sup> P.M. Phase 1-6 is designated for 205 residential units in addition to stormwater detention facilities, open space, drainageway, and trails.

This update is for Filing #2 including 78 urban lots being served Central Water and Sewer and 12 rural lots being served by Well and Septic.

**Appendix A** contains the Overall Service Area Map for Sterling Ranch Metro District

**Appendix B** contains the Final Plat for the Retreat at TimberRidge Filing #2

**SECTION 2 PROJECTION OF WATER NEEDS**

2.1 *Analysis of Water Demands:*

It is expected that the residential lots on central water will be developed with single family housing anticipating turf grass landscaping. The expected water demands are shown below.

**78 SFE lots at 0.353 Annual AF yields 27.53 Annual AF**  
**12 Rural Lots at 0.32 Annual AF/lot equals 3.84 Annual AF**

This update is for Filing #2 which is wholly contained within the Overall Demands for TimberRidge noted in Table 2-1.

**Table 2-1 -Projected Water Demands for Overall Retreat at TimberRidge**

<b># of Units</b>	<b>Land Use</b>	<b>Water Use Per Unit (AF/Unit)</b>	<b>Annual Demand (AF)</b>	<b>Average Daily Flow (ADF) (GPD)</b>	<b>Maximum Daily Flow (MDF) (@ 2.45 x ADF) (GPD)</b>	<b>Peak Hour Flow (@ 1.5 x MDF) (GPM)</b>
167	Residential (Urban, Central systems)	0.353	58.95	52,627	128,900	133
41 *	Residential (Rural, Well & OWTS)	0.32	21.73	19,399	47,528	50

**Total Annual Demand of Retreat at TimberRidge (sans individual wells on rural lots) is 58.95 Acre-Feet.**

- *The augmentation case 18 CW 3002 covers 41 lots, so we have re-iterated that number here but it should be noted that 3 of the larger lots will be served with central water and are also included in the 167.*

**SECTION 3 PROPOSED WATER RIGHTS AND SYSTEM FACILITIES**

*3.1 Water Rights:*

***The following analysis presents water rights and supply information for the Overall Retreat at TimberRidge. Retreat at TimberRidge Filing No. 2 is wholly contained within this presentation.***

Water rights adjudications have been decreed by the State of Colorado, Water Division 2 District Court. The findings and relevant summary information is displayed in Appendix C.

**Table 3-1**  
**Summary of Immediately Available Legal Water Supply**  
**for Retreat at TimberRidge Phase 1-6 including Filing #2**

<b>Water</b>	<b>Annual Supply (Acre-Feet)</b>	<b>Availability</b>
On-site NT Water	42.76	Available Immediately (Phase 3, 4 (not incl. Lot 39-41), & 6)
On-Site NNT Dawson	15.35	Available Immediately (Phase 2 (not incl. Lot 11-12),
On-Site NNT Dawson	5.23	Available Immediately (Phase 1)
Off-Site NNT Dawson	2.00	Available Immediately Lots 11 & 12 in Phase 2

An augmentation plan (18CW3002) relinquished 2,796 acre-feet of LFH NT water to augment 29 single family wells in the Dawson NNT aquifer. An augmentation plan (16CW3095) relinquishes additional 1567.5 acre-feet of NT water to augment the 10 single family wells (not incl. Lot 11 & 12)

**The total 300 year legal water supply currently available from on-site sources is 42.76 annual acre-feet. Therefore, the available supply will not meet the legal and physical needs of 167 residential homes (or single family equivalents) which is 58.95 annual acre-feet. An additional 16.19 annual acre-feet is required.**

The SRMD has committed to providing the additional water resources on a 300-year basis to make up the annual acre-foot shortfall from the District’s overall sources of supply. A previously updated SRMD commitment letter allocates an estimated 16.19 annual acre-foot required.

Additional NNT water may be made available if and when an augmentation plan is developed and approved.

Beneficial use of the water from the decrees includes domestic, commercial, irrigation, stock water, recreation, wildlife, wetlands, fire protection, piscatorial, and for storage and augmentation associated with such uses and excludes

municipal use. The beneficial uses will need to be revised to include municipal use.

**Appendix D** includes the applicable well permits and decrees enumerated in Table 3 as the onsite/offsite water decrees.

### 3.2 *Source of Supply:*

Municipal water demand would be met using primarily Arapahoe and Laramie-Fox Hills formation wells. Arroya Investments has contracted with SRMD for the provision of municipal water services.

Retreat at TimberRidge will be served from SRMD Well Site #1. Well Site #1 will include all storage, treatment, and pumping facilities required to meet the SRMD demands.

### 3.3 *Master Planning and Long-Term and Future Sources of Supply:*

The Sterling Ranch water system has only a single year of operation so little or no usable historic information would be reliable for unique long-term planning. However, substantial nearby data from the Falcon area is available for use. As of mid-year the system had only roughly 110 active users. Therefore, initial projections have been based on areawide water user characteristics and a linear buildout rate. This rate is considered to be an average annual rate that might be reasonably maintainable over a 10-year period. The average growth rate is projected as 180 units added per year.

*2040 Scenario:* Based on the above factors, the Sterling system might conservatively be expected to be serving 3,710 single family equivalents in the year 2040. This number is a service area projection and includes the Retreat and The Ranch as well as the main Sterling Ranch. This would require 1,310 annual acre-feet of water.

*2060 Scenario;* Based on the same factors, the Sterling system might be expected to be serving 7,310 single family equivalents within its expanded service area that includes the Retreat and The Ranch. This would be substantially greater than the actual Sterling Ranch. The annual acre-foot requirement might be 2,580 annual acre-feet but supply would likely include water from The Ranch.

In order to meet future demands, contractual arrangements have been made to obtain additional legal and physical supply to meet growing demands:

- a) The McCune Water SR Water LLC has contracted with the McCune Ranch to purchase non-tributary water rights in El Paso County. These water rights include Laramie Fox Hills, Arapahoe, and Denver formation water totaling 118,900 Acre-feet. Some additional Not Non-tributary water is included but not included in this calculation at this time.

- b) Pending Case 20 CW 3059 will add a net 104 Acre-feet to the SRMD supply which may be completed within 2021.
- b) The Bar-X Water has also been contracted for in a similar manner to McCune, 178. has already been purchased, but remaining Laramie Fox Hills, Arapahoe, and Denver formation water totaling 204,433 Acre-feet. Some additional Not Non-tributary water is included but not included in this calculation at this time.

In addition to adding off-site sources, is considering additional supplies that would potentially include renewable resources and/or regional projects bringing new water to the area.

**Long Term Planning:** Future water supply has already been contracted for and plans for implementation are under way. The first project is to provide augmentation for certain on-site NNT water, so that that water may be used in existing and expanded well fields on-site:

1. **On-site NNT Water (Now Case 20 CW 3059):** There is a substantial amount of Not Non-tributary water available on the Sterling site which will be the purpose of a pending augmentation plan. In addition to augmentation, this case will also quantify and seek decree on certain Schmidt water obtained by purchase. The Schmidt water includes 2780 acre-feet of NT LFH water and 9,215 acre-feet of NNT Arapahoe and Denver water. The Schmidt property and water rights are adjacent to Sterling Ranch.

This plan will use Bar-X water; and Lawn Irrigation Return Flow Credits to meet augmentation and post-pumping depletions for 72,953 Sterling Ranch Denver and Arapahoe NNT water as well as 9,215 acre-feet of owned. This water rights case will result in a NET gain of 31,348 acre-feet of water. This case is important because it will make the existing owned off-site water available on-site as well as adding legal and physical source of supply. This case is expected to be completed in 2021 but will not be needed on a physical basis until about 2029. If/when this case is resolved it would potentially add a net of **104.49 Annual AF<sub>300</sub>** to the SRMD supply. This will extend adequate supply for serving roughly 1975 SFE.

2. **Bar-X Northern Delivery Project:** To extend supplies beyond 1,975 SFE, the McCune and Bar-X contracts for water acquisition will require a major pipeline to be extended northerly to Hodgin Road. This pipeline system will make both McCune and Bar-X water being acquired to be physically as well as legally available to Sterling. Preliminary routing, environmental assessments, and 1041 applications are under way for this facility. As discussed above, development beyond 1,975 SFE will require this pipeline.



3. **McCune and Bar-X Acquisitions;** The off-site acquisitions discussed above will be exercised as needed to continually add to the Sterling supply.

McCune:	Acre-feet NT
1689-BD LFH	26,300
1690-BD Arapahoe	39,800
1691-BD Denver	52,800

There is a 1,500 acre-foot set aside reducing the Denver formation portion of the McCune supply, leaving a net total of 117,400 acre-feet of NT water which yields a **391.33 AF<sub>300</sub>** supply adding the capacity for an additional 1,109 SFE capacity.

Remaining un-purchased Bar -X Supply:

	Acre-feet NT
93-CW018 Arapahoe	74,250
93-CW018 Denver	119,900
Minus (Set-asides)	-31,348

There is additional Dawson NNT water included in the purchase arrangement, but no current augmentation plan is under consideration, so it is not counted here. This would provide an additional **576.95 AF<sub>300</sub>** supply adding the capacity for an additional 1634 SFE capacity.

4. **Regionalization opportunities:**

- Sterling's main supply source is centralized at a point that both Cherokee Metropolitan District and Woodmen Hills Metropolitan District have adjacent major storage and delivery facilities. There are currently no arrangements in place to make connections, but in the future Sterling may seek to have interconnects and possibly share supply
- The second element is a much broader regionalization. Sterling has been open to cooperative actions with Colorado Springs Utilities (CSU). CSU potentially is open to shared physical facility utilization, which would enable Sterling to expand its scope in seeking water rights. While it is not expected that Sterling will provide actual water, the access to facilities opens greater doors for Sterling.

4. **Indirect, Reuse, Lawn Irrigation Return Flows (LIRF) Credits, Aquifer Storage/Recharge; and Direct Reuse:**

- Return Flows: Initial development is being planned around sourcing available physical supplies. These supplies are all fully consumable and ultimately result in potential return

flow capabilities. Since Sterling wastewater is discharged to the Meridian system which in turn has the potential to convert some reusable flows to available physical supplies those options will be available and considered by Sterling.

- LIRF Credits, Sterling has already initiated a case that will make augmentation use of its potential LIRF credits.

### 3.4 *System Interconnects:*

Sterling currently has no system interconnections. However, as discussed above Sterling's main supply source is centralized at a point that both Cherokee Metropolitan District and Woodmen Hills Metropolitan District have adjacent major storage and delivery facilities. It is possible that future agreements could be worked out.

### 3.5 *Source of Physical Supply:*

Municipal water demand would be met using primarily Arapahoe and Laramie-Fox Hills formation wells in the Sterling area. The first well site will be drilled with an Arapahoe Well (A-1) and Laramie-Fox Hills Well (LFH-1). Well site #1 includes both an Arapahoe and a Laramie Fox Hills well. Existing Well Permits are included in **Appendix D**. Additional Permits will be obtained as needed to ultimately continue to add to the system as needed.

Off site water to the north of the Sterling Service Area is generally in the Denver and Arapahoe formations.

### 3.6 *Water Quality and Treatment:*

**Appendix E** contains the water quality reports for the initial wells drilled at Sterling Ranch. The quality is generally consistent with Denver Basin water typically encountered in the Falcon area. The water quality in these aquifers in this area has typically been suitable for potable use with the addition of iron and manganese treatment.

Additionally, water quality information relative to the single lot wells is also included as **Appendix E-1**.

### 3.7 *Water Storage, Distribution and Transmission Lines*

An initial tank has already been constructed at the Sterling site.

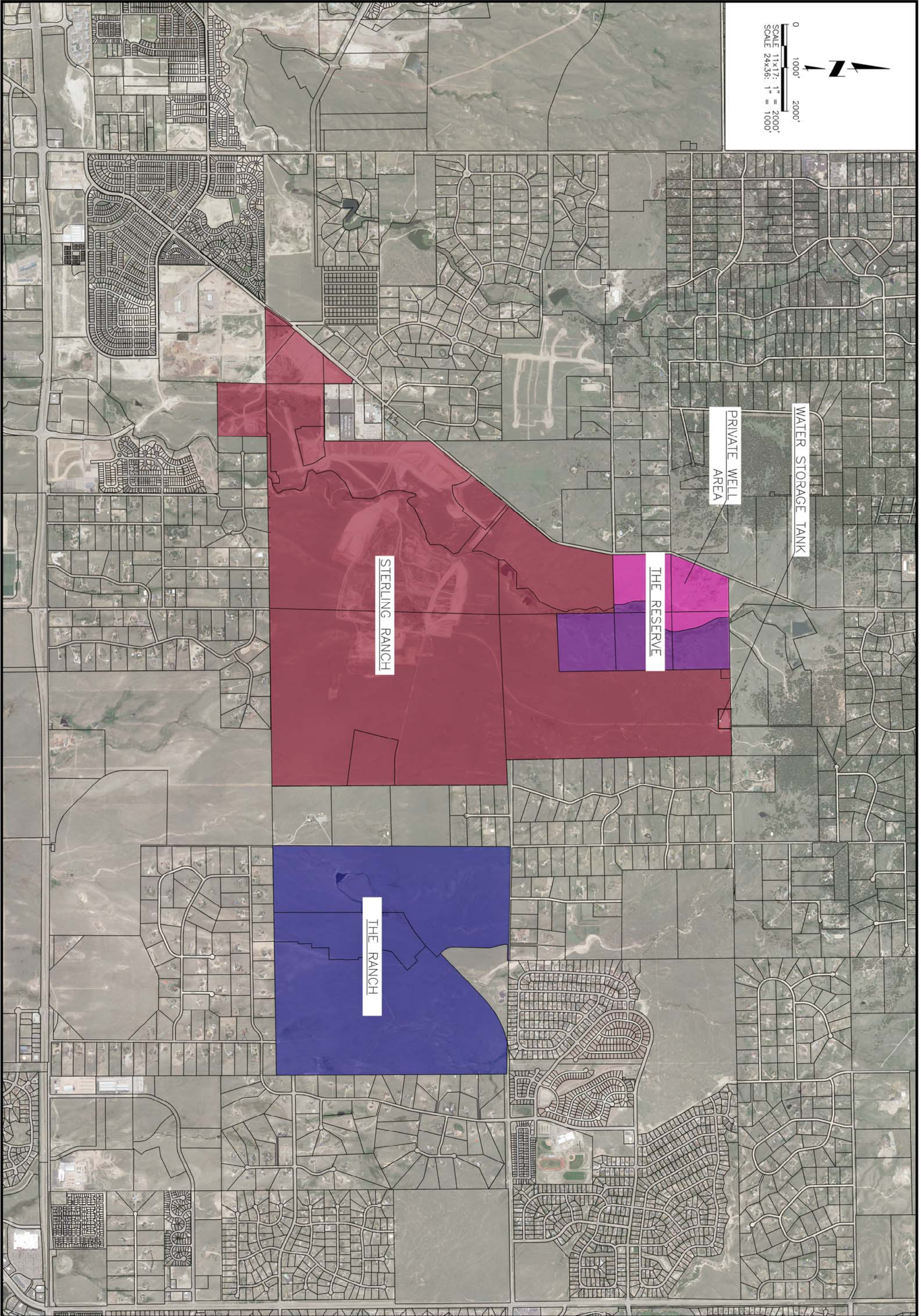
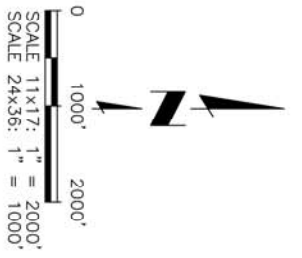
For the purpose of fire protection, we recommend 8-inch lines throughout the residential subdivision. The lines should be looped wherever street layout allows. A transmission line of a minimum of 18-inch diameter should be extended south-southwesterly along one of the major roadways from the storage tank into Phase One of the development.

### 3.8 *Pumping for Service Pressures:*

Ground elevations within the development service area range from approximately 6,970 to 7,320. Adequate service pressures are generally considered 60 psi for residential service. The tank site is on the Sterling property at a base elevation of approximately 7,310 feet which would be capable of supplying acceptable service pressures to ground elevations of approximately 7,190. Initial development is anticipated to be at elevations below 7,190 so the tank site will be able to provide adequate pressure.

As development construction progresses, the SRMD #1 District plans to construct the northern transmission line to bring in the off-site water contracted for. Because the storage tanks are located at a high elevation, there is substantial pressure for residential service and fire flow for initial development of Sterling Ranch including Retreat.

# *Appendix A*



Project No.: 161.04  
 Date: 02/22/19  
 Design: JPM  
 Drawn: GUS  
 Check: JPM

REVISIONS			
NO.	DESCRIPTION	BY	DATE
1			
2			
3			
4			
5			
6			
7			

EXHIBIT

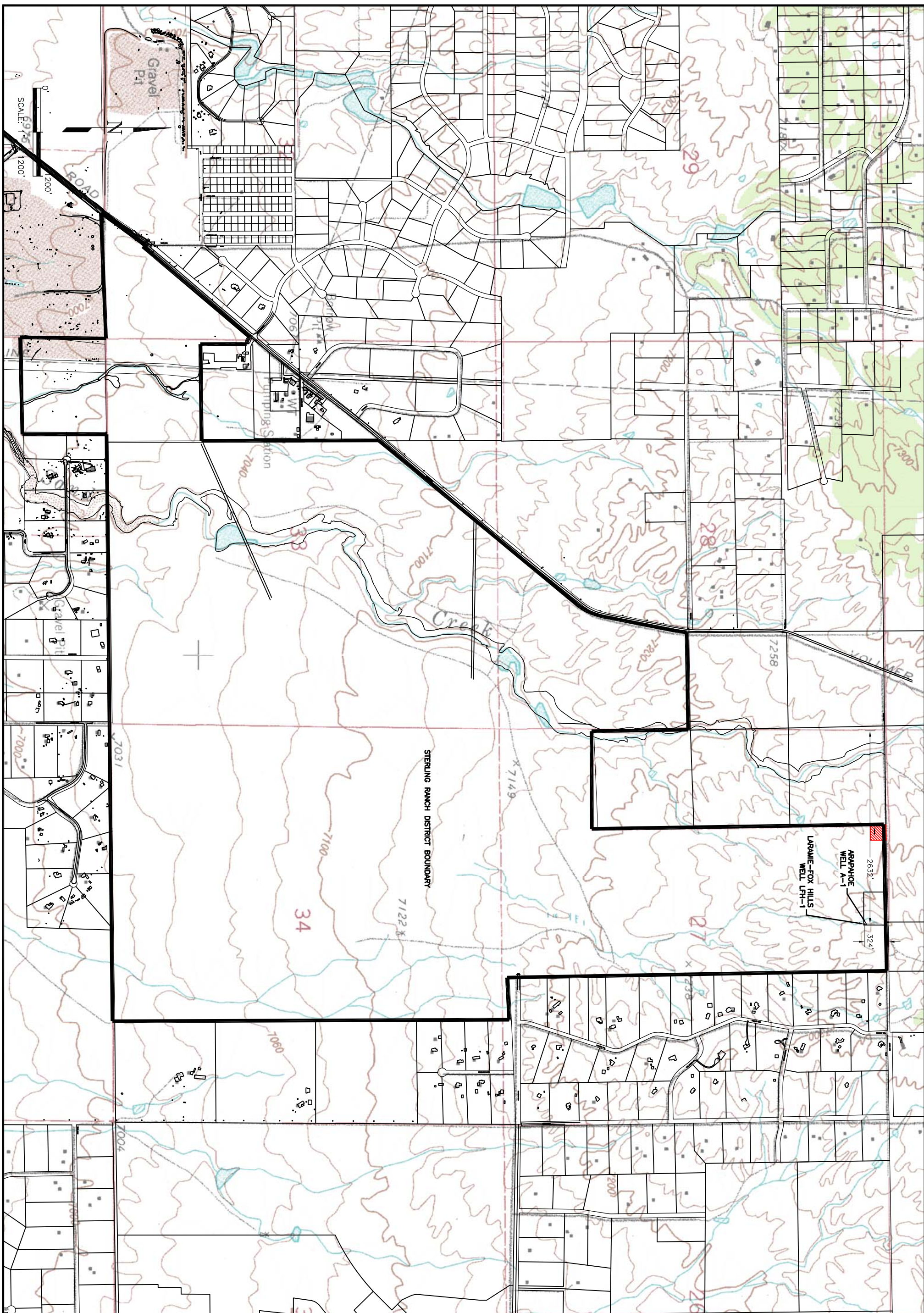
STERLING RANCH METROPOLITAN DISTRICT

APPENDIX A  
 WATER SERVICE AREAS

**JDS-HYDRO** CONSULTANTS, INC.  
 5540 TECH CENTER DR., SUITE 100  
 COLORADO SPRINGS, COLORADO 80919  
 (719) 227-0072

DISCLAIMER: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY ERRORS OR OMISSIONS SHALL BE REPORTED TO JDS-HYDRO CONSULTANTS, INC. JDS-HYDRO ASSUMES NO LIABILITY FOR UNAUTHORIZED CHANGES AND/OR REVISIONS MADE TO PLANS.

SHEET OF



MORLEY – BENTLEY INVESTMENTS  
 STERLING RANCH  
 PROPOSED WELLS LFH-1 AND A-1 LOCATIONS

**JDS-HYDRO** CONSULTANTS, INC.  
 545 East Pikes Peak Avenue, Suite 300  
 Colorado Springs, Colorado 80903  
 (719) 227-0072

Project No.: 161.04  
 Scale: 11/21/13  
 Date: 10/05/13  
 Design: JPM  
 Drawn: TAG  
 Check: JPM  
 Revised:

# *Appendix B*

# RETREAT AT TIMBERRIDGE FILING NO. 2

## A PORTION OF SECTIONS 27 AND 28, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO

**KNOW ALL MEN BY THESE PRESENTS:**

THAT TIMBERRIDGE DEVELOPMENT GROUP, LLC, A COLORADO LIMITED LIABILITY COMPANY BEING THE OWNER OF THE FOLLOWING DESCRIBED TRACT OF LAND TO WIT:

**LEGAL DESCRIPTION:**

TWO (2) PARCELS OF LAND BEING A PORTION OF SECTIONS 27 AND 28, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

**BASIS OF BEARINGS:** THE SOUTH LINE OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, BEING MONUMENTED AT THE WEST END WHICH IS THE SOUTHWEST CORNER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 28, BY A 3-1/4" ALUMINUM SURVEYORS CAP STAMPED "ESI PLS 10376, 2006" AND AT THE EAST END, WHICH IS A 30' WITNESS CORNER TO THE EAST OF THE EAST QUARTER CORNER OF SAID SECTION 28, BY A 3-1/4" ALUMINUM SURVEYORS CAP STAMPED "ESI 10376, 2006", IS ASSUMED TO BEAR S89°08'28"W A DISTANCE OF 1356.68 FEET.

**PARCEL A**

COMMENCING AT THE NORTHWEST CORNER OF RETREAT AT TIMBERRIDGE FILING NO. 1 RECORDED UNDER RECEPTION NO. 220714653, EL PASO COUNTY, COLORADO, SAID POINT BEING ALSO ON THE EASTERLY RIGHT OF WAY LINE OF VOLMER ROAD AS RECORDED IN BOOK 2678 AT PAGE 430, SAID POINT BEING THE POINT OF BEGINNING;

THENCE N21°41'10"E, ON THE EASTERLY RIGHT OF WAY LINE OF SAID VOLMER ROAD, A DISTANCE OF 657.86 FEET;  
 THENCE S68°18'50"E, A DISTANCE OF 40.00 FEET;  
 THENCE S46°30'00"E, A DISTANCE OF 243.59 FEET TO A POINT ON CURVE;  
 THENCE ON THE ARC OF A CURVE TO THE RIGHT WHOSE CENTER BEARS S46°30'00"E, HAVING A DELTA OF 114°51'36", A RADIUS OF 60.00 FEET AND A DISTANCE OF 120.28 FEET TO A POINT ON CURVE;  
 THENCE N12°00'00"E, A DISTANCE OF 307.77 FEET;  
 THENCE S78°00'00"E, A DISTANCE OF 490.00 FEET;  
 THENCE S12°00'00"W, A DISTANCE OF 183.00 FEET;  
 THENCE N90°00'00"E, A DISTANCE OF 378.68 FEET;  
 THENCE S86°05'18"E, A DISTANCE OF 253.40 FEET;  
 THENCE S00°00'00"E, A DISTANCE OF 208.46 FEET;  
 THENCE S41°00'00"E, A DISTANCE OF 256.15 FEET;  
 THENCE S16°19'41"E, A DISTANCE OF 155.30 FEET;  
 THENCE S03°30'00"W, A DISTANCE OF 107.28 FEET;  
 THENCE S17°19'01"W, A DISTANCE OF 103.72 FEET;  
 THENCE S18°00'00"W, A DISTANCE OF 100.00 FEET;  
 THENCE S19°43'27"W, A DISTANCE OF 95.70 FEET;  
 THENCE S27°50'00"W, A DISTANCE OF 94.45 FEET;  
 THENCE S35°37'50"W, A DISTANCE OF 108.98 FEET;  
 THENCE S36°37'30"W, A DISTANCE OF 200.00 FEET;  
 THENCE S53°22'30"E, A DISTANCE OF 150.00 FEET;  
 THENCE S36°37'30"W, A DISTANCE OF 10.00 FEET TO THE NORTHWESTERLY CORNER OF SAID RETREAT AT TIMBERRIDGE FILING NO. 1;

THENCE ON THE NORTHERLY BOUNDARY OF SAID RETREAT AT TIMBERRIDGE FILING NO. 1 THE FOLLOWING TWELVE (12) COURSES:

- S36°37'30"W, A DISTANCE OF 263.98 FEET TO A POINT OF CURVE;
- ON THE ARC OF A CURVE TO THE LEFT HAVING A DELTA OF 12°37'30", A RADIUS OF 525.00 FEET AND A DISTANCE OF 115.68 FEET TO A POINT ON CURVE;
- N66°00'00"W, A DISTANCE OF 197.47 FEET;
- N35°00'00"W, A DISTANCE OF 230.09 FEET;
- N05°00'00"W, A DISTANCE OF 55.08 FEET;
- N85°00'00"E, A DISTANCE OF 84.28 FEET;
- N04°30'10"W, A DISTANCE OF 243.01 FEET;
- N90°00'00"W, A DISTANCE OF 424.49 FEET;
- N54°48'53"W, A DISTANCE OF 205.37 FEET;
- N66°30'00"W, A DISTANCE OF 255.51 FEET TO A POINT ON CURVE;
- ON THE ARC OF A CURVE TO THE RIGHT WHOSE CENTER BEARS S66°30'00"E, HAVING A DELTA OF 09°20'00", A RADIUS OF 770.00 FEET AND A DISTANCE OF 125.43 FEET TO A POINT ON CURVE;
- N57°10'00"W, A DISTANCE OF 661.28 FEET TO THE POINT OF BEGINNING;

CONTAINING A CALCULATED AREA OF 45.715 ACRES.

**PARCEL B**

COMMENCING AT THE SOUTHEAST CORNER OF RETREAT AT TIMBERRIDGE FILING NO. 1 RECORDED UNDER RECEPTION NO. 220714653, EL PASO COUNTY, COLORADO, SAID POINT BEING THE POINT OF BEGINNING;

THENCE ON THE EASTERLY BOUNDARY OF SAID RETREAT AT TIMBERRIDGE FILING NO. 1 THE FOLLOWING FOURTEEN (14) COURSES:

- N02°25'00"W, A DISTANCE OF 18.66 FEET TO A POINT OF CURVE;
- ON THE ARC OF A CURVE TO THE RIGHT HAVING A DELTA OF 01°30'30", A RADIUS OF 1025.00 FEET AND A DISTANCE OF 26.98 FEET TO A POINT OF TANGENT;
- N00°54'30"W, A DISTANCE OF 154.28 FEET;
- S89°05'30"W, A DISTANCE OF 150.00 FEET;
- N00°54'30"W, A DISTANCE OF 175.00 FEET;
- N05°04'00"W, A DISTANCE OF 416.10 FEET;
- N89°05'30"E, A DISTANCE OF 145.17 FEET;
- S88°03'59"E, A DISTANCE OF 85.10 FEET;
- N89°05'30"E, A DISTANCE OF 160.00 FEET;
- N00°54'30"W, A DISTANCE OF 720.00 FEET;
- N06°02'18"E, A DISTANCE OF 136.13 FEET TO A POINT ON CURVE;
- ON THE ARC OF A CURVE TO THE RIGHT WHOSE CENTER BEARS N06°02'18"E, HAVING A DELTA OF 05°02'42", A RADIUS OF 725.00 FEET AND A DISTANCE OF 63.84 FEET TO A POINT ON CURVE;
- N11°05'00"E, A DISTANCE OF 147.40 FEET;
- N71°41'17"W, A DISTANCE OF 87.90 FEET;

THENCE N19°50'00"E, A DISTANCE OF 225.69 FEET;  
 THENCE N05°57'53"E, A DISTANCE OF 241.74 FEET;  
 THENCE N89°05'30"E, A DISTANCE OF 150.00 FEET;  
 THENCE N00°54'30"W, A DISTANCE OF 28.43 FEET TO A POINT OF CURVE;  
 THENCE ON THE ARC OF CURVE TO THE RIGHT HAVING A DELTA OF 83°24'30", A RADIUS OF 55.00 FEET AND A DISTANCE OF 80.07 FEET TO A POINT ON CURVE;  
 THENCE N07°30'00"W, A DISTANCE OF 198.00 FEET;  
 THENCE S77°00'00"E, A DISTANCE OF 251.41 FEET;  
 THENCE S00°54'30"E, A DISTANCE OF 2478.00 FEET TO THE SOUTH LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 27 TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN;  
 THENCE S87°35'00"W, ON SAID SOUTH LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 27, A DISTANCE OF 639.38 FEET TO THE POINT OF BEGINNING;

CONTAINING A CALCULATED AREA OF 30.114 ACRES.

**CONTAINING A TOTAL CALCULATED AREA OF 75.829 ACRES.**

PCDD FILE NO.:

**OWNERS CERTIFICATE:**

THE UNDERSIGNED, BEING ALL THE OWNERS, MORTGAGEES, BENEFICIARIES OF DEEDS OF TRUST AND HOLDERS OF OTHER INTERESTS IN THE LAND DESCRIBED HEREIN, HAVE LAID OUT, SUBDIVIDED, AND PLATTED SAID LANDS INTO LOTS, TRACTS, STREETS, AND EASEMENTS AS SHOWN HEREON UNDER THE NAME AND SUBDIVISION OF RETREAT AT TIMBERRIDGE FILING NO. 2. ALL PUBLIC IMPROVEMENTS SO PLATTED ARE HEREBY DEDICATED TO PUBLIC USE AND SAID OWNER DOES HEREBY COVENANT AND AGREE THAT THE PUBLIC IMPROVEMENTS WILL BE CONSTRUCTED TO EL PASO COUNTY STANDARDS AND THAT PROPER DRAINAGE AND EROSION CONTROL FOR SAME WILL BE PROVIDED AT SAID OWNER'S EXPENSE, ALL TO THE SATISFACTION OF THE BOARD OF COUNTY COMMISSIONERS OF EL PASO COUNTY, COLORADO. UPON ACCEPTANCE BY RESOLUTION, ALL PUBLIC IMPROVEMENTS SO DEDICATED WILL BECOME MATTERS OF MAINTENANCE BY EL PASO COUNTY, COLORADO. THE UTILITY EASEMENTS SHOWN HEREON ARE HEREBY DEDICATED FOR PUBLIC UTILITIES AND COMMUNICATION SYSTEMS AND OTHER PURPOSES AS SHOWN HEREON. THE ENTITIES RESPONSIBLE FOR PROVIDING THE SERVICES FOR WHICH THE EASEMENTS ARE ESTABLISHED ARE HEREBY GRANTED THE PERPETUAL RIGHT OF INGRESS AND EGRESS FROM AND TO ADJACENT PROPERTIES FOR INSTALLATION, MAINTENANCE, AND REPLACEMENT OF UTILITY LINES AND RELATED FACILITIES. TRACT A IS HEREBY DEDICATED TO EL PASO COUNTY FOR PUBLIC RIGHT OF WAY.

**OWNER:**

THE AFOREMENTIONED, TIMBERRIDGE DEVELOPMENT GROUP, LLC, A COLORADO LIMITED LIABILITY COMPANY HAS EXECUTED THIS INSTRUMENT THIS \_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_, A.D.

BY: DOUGLAS M. STIMPLE, CEO, ELITE PROPERTIES OF AMERICA, INC. MANAGER OF TIMBERRIDGE DEVELOPMENT GROUP, LLC, A COLORADO LIMITED LIABILITY COMPANY.

STATE OF COLORADO )  
 COUNTY OF EL PASO )ss

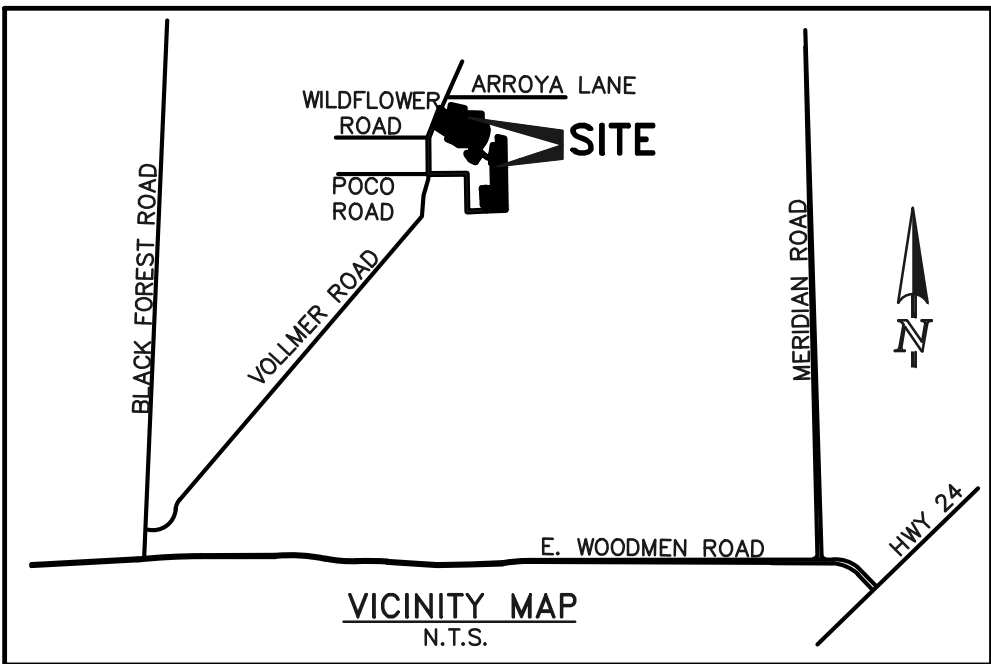
THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS \_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_, A.D. BY DOUGLAS M. STIMPLE AS CEO, ELITE PROPERTIES OF AMERICA INC. MANAGER OF TIMBERRIDGE DEVELOPMENT GROUP, LLC, A COLORADO LIMITED LIABILITY COMPANY.

WITNESS MY HAND AND OFFICIAL SEAL.

MY COMMISSION EXPIRES: \_\_\_\_\_ NOTARY PUBLIC

**GENERAL NOTES:**

- THE DATE OF PREPARATION IS JANUARY 4, 2021.
- THE TRACT OF LAND HEREIN PLATTED LIES WITHIN SECTIONS 27 AND 28, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN.
- LOTS 2 - 3: UNLESS SHOWN GREATER IN WIDTH, BOTH SIDES OF ALL SIDE LOT LINES ARE HEREBY PLATTED WITH A TEN (10) FOOT EASEMENT FOR PUBLIC UTILITIES, ALL REAR LOT LINES ARE HEREBY PLATTED WITH A TWENTY (20) FOOT EASEMENT FOR PUBLIC UTILITIES AND DRAINAGE PURPOSES, A FIVE (5) FOOT EASEMENT ALONG THE FRONT AND/OR SIDE OF ANY LOT ABUTTING A 60' WIDE RIGHT-OF-WAY FOR PUBLIC UTILITIES AND IMPROVEMENT PURPOSES, AND A TEN (10) FOOT EASEMENT, AS SHOWN ON THIS PLAT, FOR PUBLIC UTILITIES, WITH THE SOLE RESPONSIBILITY FOR MAINTENANCE BEING VESTED WITH THE INDIVIDUAL PROPERTY OWNERS.
- LOTS 1, 4 - 12: UNLESS SHOWN GREATER IN WIDTH, BOTH SIDES OF ALL SIDE LOT LINES ARE HEREBY PLATTED WITH A TEN (10) FOOT EASEMENT FOR PUBLIC UTILITIES, ALL REAR LOT LINES ARE HEREBY PLATTED WITH A TEN (10) FOOT EASEMENT FOR PUBLIC UTILITIES AND DRAINAGE PURPOSES, A FIVE (5) FOOT EASEMENT ALONG THE FRONT AND/OR SIDE OF ANY LOT ABUTTING A 60' WIDE RIGHT-OF-WAY FOR PUBLIC UTILITIES AND IMPROVEMENT PURPOSES, AND A TEN (10) FOOT EASEMENT, AS SHOWN ON THIS PLAT, FOR PUBLIC UTILITIES, WITH THE SOLE RESPONSIBILITY FOR MAINTENANCE BEING VESTED WITH THE INDIVIDUAL PROPERTY OWNERS.
- LOTS 13 - 90: UNLESS SHOWN GREATER IN WIDTH, BOTH SIDES OF ALL SIDE LOT LINES ARE HEREBY PLATTED WITH A FIVE (5) FOOT EASEMENT FOR PUBLIC UTILITIES, ALL REAR LOT LINES ARE HEREBY PLATTED WITH A SEVEN (7) FOOT EASEMENT FOR PUBLIC UTILITIES AND DRAINAGE PURPOSES, A FIVE (5) FOOT EASEMENT ALONG THE FRONT AND/OR SIDE OF ANY LOT ABUTTING A 60' WIDE RIGHT-OF-WAY FOR PUBLIC UTILITIES AND IMPROVEMENT PURPOSES, AND A TEN (10) FOOT EASEMENT, AS SHOWN ON THIS PLAT, FOR PUBLIC UTILITIES, WITH THE SOLE RESPONSIBILITY FOR MAINTENANCE BEING VESTED WITH THE INDIVIDUAL PROPERTY OWNERS.
- THE FOLLOWING REPORTS HAVE BEEN SUBMITTED AND ARE ON FILE AT THE COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT: SOILS AND GEOLOGICAL STUDY, WATER AVAILABILITY STUDY, DRAINAGE REPORTS, EROSION CONTROL REPORT AND TRAFFIC STUDY IN FILE NO. SP-182.
- THE TOTAL NUMBER OF LOTS BEING PLATTED IS 90. THE TOTAL NUMBER OF TRACTS BEING PLATTED IS 3.
- ALL PROPERTY WITHIN THIS SUBDIVISION IS INCLUDED IN THE RETREAT METROPOLITAN DISTRICT NO. 1, AS EVIDENCED BY INSTRUMENTS RECORDED UNDER RECEPTION NO. 220087614 AND 220117578. ALL PROPERTY WITHIN THIS SUBDIVISION IS INCLUDED IN THE RETREAT METROPOLITAN DISTRICT NO. 2, AS EVIDENCED BY INSTRUMENT RECORDED UNDER RECEPTION NO. 220087615.
- DEVELOPER SHALL COMPLY WITH FEDERAL AND STATE LAWS, REGULATIONS, ORDINANCES, REVIEW AND PERMIT REQUIREMENTS, AND OTHER AGENCY REQUIREMENTS, IF ANY, OF A APPLICABLE AGENCIES INCLUDING, BUT NOT LIMITED TO, THE COLORADO DEPARTMENT OF PARKS AND WILDLIFE, COLORADO DEPARTMENT OF TRANSPORTATION, U.S. ARMY CORP. OF ENGINEERS, THE U.S. FISH & WILDLIFE SERVICE AND/OR COLORADO DEPARTMENT OF WILDLIFE REGARDING THE ENDANGERED SPECIES ACT.
- THE ADDRESSES ( ) EXHIBED ON THIS PLAT ARE FOR INFORMATIONAL PURPOSES ONLY. THEY ARE NOT THE LEGAL DESCRIPTION AND ARE SUBJECT TO CHANGE.
- FLOODPLAIN STATEMENT: THIS SITE, RETREAT AT TIMBERRIDGE FILING NO. 2, IS PARTIALLY WITHIN A DESIGNATED F.E.M.A. FLOODPLAIN AS DETERMINED BY THE FLOOD INSURANCE RATE MAP, MAP NUMBER 08041C0535G, DATED DECEMBER 7, 2018. (ZONE X AND AE) BFE'S (BASE FLOOD ELEVATIONS) INDICATED HEREON ARE SHOWN BY GRAPHIC REPRESENTATION FROM THE FEMA GIS MAPS.
- NO LOT OR INTEREST THEREIN, SHALL BE SOLD, CONVEYED, OR TRANSFERRED WHETHER BY DEED OR BY CONTRACT, NOR SHALL BUILDING PERMITS BE ISSUED, UNTIL AND UNLESS EITHER THE REQUIRED PUBLIC AND COMMON DEVELOPMENT IMPROVEMENTS HAVE BEEN CONSTRUCTED AND COMPLETED AND PRELIMINARILY ACCEPTED IN ACCORDANCE WITH THE SUBDIVISION IMPROVEMENTS AGREEMENT BETWEEN THE APPLICANT/OWNER AND EL PASO COUNTY AS RECORDED UNDER RECEPTION NO. \_\_\_\_\_ IN THE OFFICE OF THE CLERK AND RECORDER OF EL PASO COUNTY, COLORADO OR, IN THE ALTERNATIVE, OTHER COLLATERAL IS PROVIDED TO MAKE PROVISION FOR THE COMPLETION OF SAID IMPROVEMENTS IN ACCORDANCE WITH THE EL PASO COUNTY LAND DEVELOPMENT CODE AND ENGINEERING CRITERIA MANUAL. ANY SUCH ALTERNATIVE COLLATERAL MUST BE APPROVED BY THE BOARD OF COUNTY COMMISSIONERS OR, IF PERMITTED BY THE SUBDIVISION IMPROVEMENTS AGREEMENT, BY THE DEPARTMENT EXECUTIVE DIRECTOR AND MEET THE POLICY AND PROCEDURE REQUIREMENTS OF EL PASO COUNTY PRIOR TO THE RELEASE BY THE COUNTY OF ANY LOTS FOR SALE, CONVEYANCE OR TRANSFER. THIS PLAT RESTRICTION MAY BE REMOVED OR RESCINDED BY THE BOARD OF COUNTY COMMISSIONERS OR, IF PERMITTED BY THE SUBDIVISION IMPROVEMENTS AGREEMENT, BY THE PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT EXECUTIVE DIRECTOR UPON EITHER APPROVAL OF AN ALTERNATIVE FORM OF COLLATERAL OR COMPLETION AND PRELIMINARY ACCEPTANCE BY THE EL PASO BOARD OF COUNTY COMMISSIONERS OF ALL IMPROVEMENTS REQUIRED TO BE CONSTRUCTED AND COMPLETED IN ACCORDANCE WITH SAID SUBDIVISION IMPROVEMENTS AGREEMENT. THE PARTIAL RELEASE OF LOTS FOR SALE, CONVEYANCE OR TRANSFER MAY ONLY BE GRANTED IN ACCORDANCE WITH ANY PLANNED PARTIAL RELEASE OF LOTS AUTHORIZED BY THE SUBDIVISION IMPROVEMENTS AGREEMENT.
- THIS PLAT IS REGULATED BY A P.U.D. DEVELOPMENT PLAN AND P.U.D. DEVELOPMENT GUIDELINES AS RECORDED UNDER RECEPTION NO. 218040692 OF THE RECORDS OF EL PASO COUNTY AND AS AMENDED.
- MAILBOXES SHALL BE INSTALLED IN ACCORDANCE WITH ALL EL PASO COUNTY DEPARTMENT OF TRANSPORTATION AND UNITED STATES POSTAL SERVICE REGULATIONS.
- FIRE PROTECTION IS BY BLACK FOREST FIRE PROTECTION DISTRICT.



**GENERAL NOTES (CONT.):**

- ANY PERSON WHO KNOWINGLY REMOVES, ALTERS OR DEFACES ANY PUBLIC LAND SURVEY MONUMENT OR LAND BOUNDARY MONUMENT OR ACCESSORY, COMMITS A CLASS TWO (2) MISDEMEANOR PURSUANT TO STATE STATUTE 18-4-508, C.R.S.
- THIS PLAT DOES NOT CONSTITUTE A TITLE SEARCH TO DETERMINE OWNERSHIP OR EASEMENTS OF RECORD. FOR ALL INFORMATION REGARDING EASEMENTS, RIGHT-OF-WAY AND TITLE OF RECORD, CLASSIC CONSULTING ENGINEERS AND SURVEYORS AND THE SURVEYOR OF RECORD RELIED UPON THE TITLE COMMITMENT ORDER NUMBER \_\_\_\_\_, PREPARED BY CAPSTONE TITLE, WITH AN EFFECTIVE DATE OF \_\_\_\_\_ AT 8:00 A.M.
- PURSUANT TO RESOLUTION \_\_\_\_\_ APPROVED BY THE BOARD OF DIRECTORS, EL PASO COUNTY PUBLIC IMPROVEMENT DISTRICT AND RECORDED IN THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDED AT RECEPTION NO. \_\_\_\_\_, THE PARCELS WITHIN THE PLATTED BOUNDARIES OF RETREAT AT TIMBERRIDGE FILING NO. 2 ARE INCLUDED WITHIN THE BOUNDARIES OF THE EL PASO COUNTY PUBLIC IMPROVEMENT DISTRICT NO. 3 AND AS SUCH ARE SUBJECT TO APPLICABLE ROAD IMPACT FEES AND MILL LEVY.
- A DRIVEWAY PERMIT IS REQUIRED TO BE APPLIED FOR AND APPROVED BY EL PASO COUNTY PRIOR TO THE ESTABLISHMENT OF ANY DRIVEWAY.
- ALL PROPERTY OWNERS ARE RESPONSIBLE FOR MAINTAINING PROPER STORM WATER DRAINAGE IN AND THROUGH THEIR PROPERTY. PUBLIC DRAINAGE EASEMENTS AS SPECIFICALLY NOTED ON THE PLAT SHALL BE MAINTAINED BY THE INDIVIDUAL LOT OWNERS UNLESS OTHERWISE INDICATED. STRUCTURES, FENCES, MATERIALS OR LANDSCAPING THAT COULD IMPEDE THE FLOW OF RUNOFF SHALL NOT BE PLACED IN DRAINAGE EASEMENTS.
- LOTS 27-43 AND 68-74 SHALL ACCEPT DRAINAGE FROM UPSTREAM AREAS AND THE PURCHASERS OF THESE LOTS ARE RESPONSIBLE FOR THE CONSTRUCTION AND MAINTENANCE OF SIDE-LOT DRAINAGE SWALES TO ACCOMMODATE THE STORMWATER RUNOFF.
- INDIVIDUAL LOT PURCHASERS ARE RESPONSIBLE FOR CONSTRUCTING DRIVEWAYS, INCLUDING NECESSARY DRAINAGE CULVERTS PER LAND DEVELOPMENT CODE SECTION 6.3.3.C.2 AND 6.3.3.C.3.
- BASIS OF BEARINGS: THE SOUTH LINE OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, BEING MONUMENTED AT THE WEST END WHICH IS THE SOUTHWEST CORNER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 28, BY A 3-1/4" ALUMINUM SURVEYORS CAP STAMPED "ESI PLS 10376, 2006" AND AT THE EAST END, WHICH IS A 30' WITNESS CORNER TO THE EAST OF THE EAST QUARTER CORNER OF SAID SECTION 28, BY A 3-1/4" ALUMINUM SURVEYORS CAP STAMPED "ESI PLS 10376, 2006", IS ASSUMED TO BEAR S89°08'28"W A DISTANCE OF 1356.68 FEET.
- TRACT A IS FOR PUBLIC RIGHT OF WAY TO BE OWNED AND MAINTAINED BY EL PASO COUNTY.
- TRACT B IS FOR DETENTION AND WATER QUALITY AND PUBLIC UTILITIES. TRACT WILL BE OWNED AND MAINTAINED BY THE RETREAT METROPOLITAN DISTRICT NO. 1. OWNERSHIP OF SAID TRACT TO BE CONVEYED BY SEPARATE DOCUMENT.
- TRACT C IS FOR PUBLIC REGIONAL AND LOCAL TRAILS, EXISTING DRAINAGEWAY, PUBLIC UTILITIES AND OPEN SPACE. TRACT WILL BE OWNED AND MAINTAINED BY EL PASO COUNTY, UPON COMPLETION OF THE REQUIRED IMPROVEMENTS AND COUNTY ACCEPTANCE, THE RETREAT METROPOLITAN DISTRICT NO. 1 SHALL BE RESPONSIBLE FOR THE AESTHETIC MAINTENANCE.
- UTILITY PROVIDERS:  
 WATER AND SANITARY SEWER: LOTS 1-12 INDIVIDUAL WELL AND SEPTIC SYSTEM  
 WATER AND SANITARY SEWER: LOTS 13-90 STERLING RANCH METROPOLITAN DISTRICT ELECTRIC: MOUNTAIN VIEW ELECTRIC ASSOCIATION  
 GAS: BLACK HILLS ENERGY
- ALL PROPERTY WITHIN THIS SUBDIVISION IS SUBJECT TO THE DECLARATION OF COVENANTS, CONDITIONS, RESTRICTIONS AND EASEMENTS FOR RETREAT AT TIMBERRIDGE RECORDED OCTOBER 30, 2020, UNDER RECEPTION NO. 220174542 RECORDS OF EL PASO COUNTY, COLORADO.
- ALL STRUCTURAL FOUNDATIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER CURRENTLY LICENSED IN THE STATE OF COLORADO.
- WATER IN THE DENVER BASIN AQUIFERS IS ALLOCATED ON A 100 YEAR AQUIFER LIFE: HOWEVER, FOR EL PASO COUNTY PLANNING PURPOSES, WATER IN THE DENVER BASIN AQUIFERS IS EVALUATED BASED ON A 300 YEAR AQUIFER LIFE. APPLICANTS AND ALL FUTURE OWNERS IN THE SUBDIVISION SHOULD BE AWARE THAT THE ECONOMIC LIFE OF A WATER SUPPLY BASED ON WELLS IN A GIVEN DENVER BASIN AQUIFER MAY BE LESS THAN EITHER THE 100 YEARS OR 300 YEARS USED FOR ALLOCATION INDICATED DUE TO ANTICIPATED WATER LEVEL DECLINES. FURTHERMORE, THE WATER SUPPLY PLAN SHOULD NOT RELY SOLELY UPON NON-RENEWABLE AQUIFERS. ALTERNATIVE RENEWABLE WATER RESOURCES SHOULD BE ACQUIRED AND INCORPORATED IN A PERMANENT WATER SUPPLY PLAN THAT PROVIDES FUTURE GENERATIONS WITH A WATER SUPPLY.
- THERE SHALL BE NO DIRECT VEHICULAR ACCESS FROM ANY LOT TO VOLLMER ROAD.
- THE SECONDARY GRAVEL ACCESS ROAD, LYING WITHIN AN EASEMENT DESCRIBED IN A DOCUMENT RECORDED UNDER RECEPTION NO. 220202400, IS NOT COUNTY MAINTAINED. CONSTRUCTION AND MAINTENANCE OBLIGATIONS ARE THE RESPONSIBILITY OF TIMBERRIDGE DEVELOPMENT GROUP, LLC AND THE RETREAT METROPOLITAN DISTRICT NO. 1 PER SAID EASEMENT DOCUMENT.
- THE UNDERDRAIN CONSTRUCTED BY THE DEVELOPER, ACCORDING TO PLANS APPROVED BY THE STERLING RANCH METROPOLITAN DISTRICT SHALL BE MAINTAINED BY THE RETREAT METROPOLITAN DISTRICT NO. 1.
- SOIL AND GEOLOGY CONDITIONS: THE FOLLOWING LOTS HAVE BEEN FOUND TO BE IMPACTED BY GEOLOGIC HAZARDS. MITIGATION MEASURES AND A MAP OF THE HAZARD AREA CAN BE FOUND IN THE REPORT SOIL, GEOLOGY, GEOLOGIC HAZARD AND WASTEWATER STUDY, THE RETREAT AT TIMBERRIDGE, VOLLMER ROAD AND ARROYA LANE EL PASO COUNTY, COLORADO BY ENTECH ENGINEERING INC, DATED APRIL 12, 2017, REVISED DECEMBER 1, 2017 IN FILE RETREAT AT TIMBERRIDGE FILE NO. PUD 17-003 AND FILE NO. SP 182 AVAILABLE AT THE EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT:  
 POTENTIAL SEASONAL SHALLOW WATER: LOTS 1-4 AND 8-11, NO BUILDINGS OR SEPTIC SYSTEMS ARE ALLOWED IN THESE AREAS.  
 IN AREAS OF HIGH GROUNDWATER:  
 DUE TO HIGH GROUNDWATER IN THE AREA, ALL FOUNDATIONS SHALL INCORPORATE AN UNDERGROUND DRAINAGE SYSTEM.
- THE PRIVATE DETENTION BASIN MAINTENANCE AGREEMENT IS RECORDED UNDER RECEPTION NO. \_\_\_\_\_
- INDIVIDUAL WELLS FOR LOTS 1-12 ARE THE RESPONSIBILITY OF EACH PROPERTY OWNER. PERMITS FOR INDIVIDUAL DOMESTIC WELLS MUST BE OBTAINED FROM THE STATE ENGINEER WHO BY LAW HAS THE AUTHORITY TO SET CONDITIONS FOR THE ISSUANCE OF THESE PERMITS.
- WATER RIGHTS AVAILABLE TO SERVE INDIVIDUAL WELLS ON LOTS 1-12 SHALL BE OWNED BY THE RETREAT METROPOLITAN DISTRICT NO. 1 AND NOT THE PROPERTY OWNERS. EACH PROPERTY OWNER MUST OBTAIN A WATER CERTIFICATE FROM THE DISTRICT GRANTING THE RIGHT TO WITHDRAW THE WATER TO SUPPORT WELL PERMIT APPLICATIONS.

**ACCEPTANCE CERTIFICATE FOR TRACTS**

THE DEDICATION OF TRACT B WITH USE STATED IN THE TRACT TABLE, IS HEREBY ACCEPTED FOR OWNERSHIP AND MAINTENANCE BY THE RETREAT METROPOLITAN DISTRICT NO. 2.

BY: \_\_\_\_\_  
 AS \_\_\_\_\_  
 OF THE RETREAT METROPOLITAN DISTRICT NO. 1.  
 STATE OF COLORADO )  
 COUNTY OF EL PASO )ss

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_, A.D. BY \_\_\_\_\_ AS \_\_\_\_\_ OF THE RETREAT METROPOLITAN DISTRICT NO. 1.

WITNESS MY HAND AND OFFICIAL SEAL.  
 MY COMMISSION EXPIRES: \_\_\_\_\_ NOTARY PUBLIC



**SUMMARY TABLE:**

LOTS	SQUARE FEET	PERCENTAGE	OWNER	MAINTENANCE
TRACT A (DEDICATED ROW)	26,472	0.80%	EL PASO COUNTY	EL PASO COUNTY
TRACT B (DETENTION AND WATER QUALITY AND PUBLIC UTILITIES)	28,029	0.85%	RETREAT METROPOLITAN DISTRICT NO. 1	RETREAT METROPOLITAN DISTRICT NO. 1
TRACT C (PUBLIC REGIONAL & LOCAL TRAILS, EXISTING DRAINAGEWAY, PUBLIC UTILITIES AND OPEN SPACE)	352,326	10.67%	EL PASO COUNTY	EL PASO (AESTHETIC MAINTENANCE BY DISTRICT NO. 1)
LOTS (90 TOTAL)	2,538,488	76.85%	INDIVIDUAL LOT OWNERS	
R.O.W.	357,812	10.83%	COUNTY	COUNTY
TOTAL	3,303,126	100.00%		

**SURVEYOR'S STATEMENT:**

I, DOUGLAS P. REINELT, A DULY LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THIS PLAT TRULY AND CORRECTLY REPRESENTS THE RESULTS OF A SURVEY MADE ON DATE OF SURVEY, BY ME OR UNDER MY DIRECT SUPERVISION AND THAT ALL MONUMENTS EXIST AS SHOWN HEREON; THAT MATHEMATICAL CLOSURE ERRORS ARE LESS THAN 1:10,000; AND THAT SAID PLAT HAS BEEN PREPARED IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS OF THE STATE OF COLORADO DEALING WITH MONUMENTS, SUBDIVISION, OR SURVEYING OF LAND AND ALL APPLICABLE PROVISION OF THE EL PASO COUNTY LAND DEVELOPMENT CODED.

I ATTEST THE ABOVE ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_.

DOUGLAS P. REINELT, PROFESSIONAL LAND SURVEYOR \_\_\_\_\_ DATE \_\_\_\_\_  
 COLORADO P.L.S. NO. 30118  
 FOR AND ON BEHALF OF CLASSIC CONSULTING,  
 ENGINEERS AND SURVEYORS, LLC.

**NOTICE:**

ACCORDING TO COLORADO LAW YOU **MUST** COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT, MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

**BOARD OF COUNTY COMMISSIONERS CERTIFICATE**

THIS PLAT FOR RETREAT AT TIMBERRIDGE FILING NO. 2 WAS APPROVED FOR FILING BY THE EL PASO COUNTY, COLORADO BOARD OF COUNTY COMMISSIONERS ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_, SUBJECT TO ANY NOTES SPECIFIED HEREON AND ANY CONDITIONS INCLUDED IN THE RESOLUTION OF APPROVAL. THE DEDICATIONS OF LAND TO THE PUBLIC STREETS, PUBLIC EASEMENTS AND TRACTS A AND C ARE ACCEPTED, BUT PUBLIC IMPROVEMENTS THEREON WILL NOT BECOME MAINTENANCE RESPONSIBILITY OF EL PASO COUNTY UNTIL PRELIMINARY ACCEPTANCE OF THE PUBLIC IMPROVEMENTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE AND ENGINEERING CRITERIA MANUAL, AND THE SUBDIVISION IMPROVEMENTS AGREEMENT.

CHAIR, BOARD OF COUNTY COMMISSIONERS \_\_\_\_\_ DATE \_\_\_\_\_

EXECUTIVE DIRECTOR OF PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT \_\_\_\_\_ DATE \_\_\_\_\_

COUNTY ASSESSOR \_\_\_\_\_ DATE \_\_\_\_\_

**CLERK AND RECORDER:**

STATE OF COLORADO )  
 COUNTY OF EL PASO )ss  
 I HEREBY CERTIFY THAT THIS INSTRUMENT WAS FILED FOR RECORD IN MY OFFICE AT O'CLOCK \_\_\_ M. THIS \_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_, A.D., AND IS DULY RECORDED AT RECEPTION NO. \_\_\_\_\_ OF THE RECORDS OF EL PASO COUNTY, COLORADO.

CHUCK BROERMAN, RECORDER

BY: \_\_\_\_\_ DEPUTY

DRAINAGE: SAND CREEK

BRIDGE FEES: \_\_\_\_\_

URBAN PARK: \_\_\_\_\_

REGIONAL PARK: \_\_\_\_\_

SCHOOL FEE: FALCON SCHOOL DISTRICT NO. 49  
ACADEMY SCHOOL DISTRICT NO. 20

**OWNER:** TIMBERRIDGE DEVELOPMENT GROUP, LLC  
 2138 FLYING HORSE CLUB DRIVE  
 COLORADO SPRINGS, CO 80921

RETREAT AT TIMBERRIDGE  
 FILING NO. 2  
 JOB NO. 1185.20  
 JANUARY 4, 2021  
 SHEET 1 OF 7

NO.	REVISION	DATE

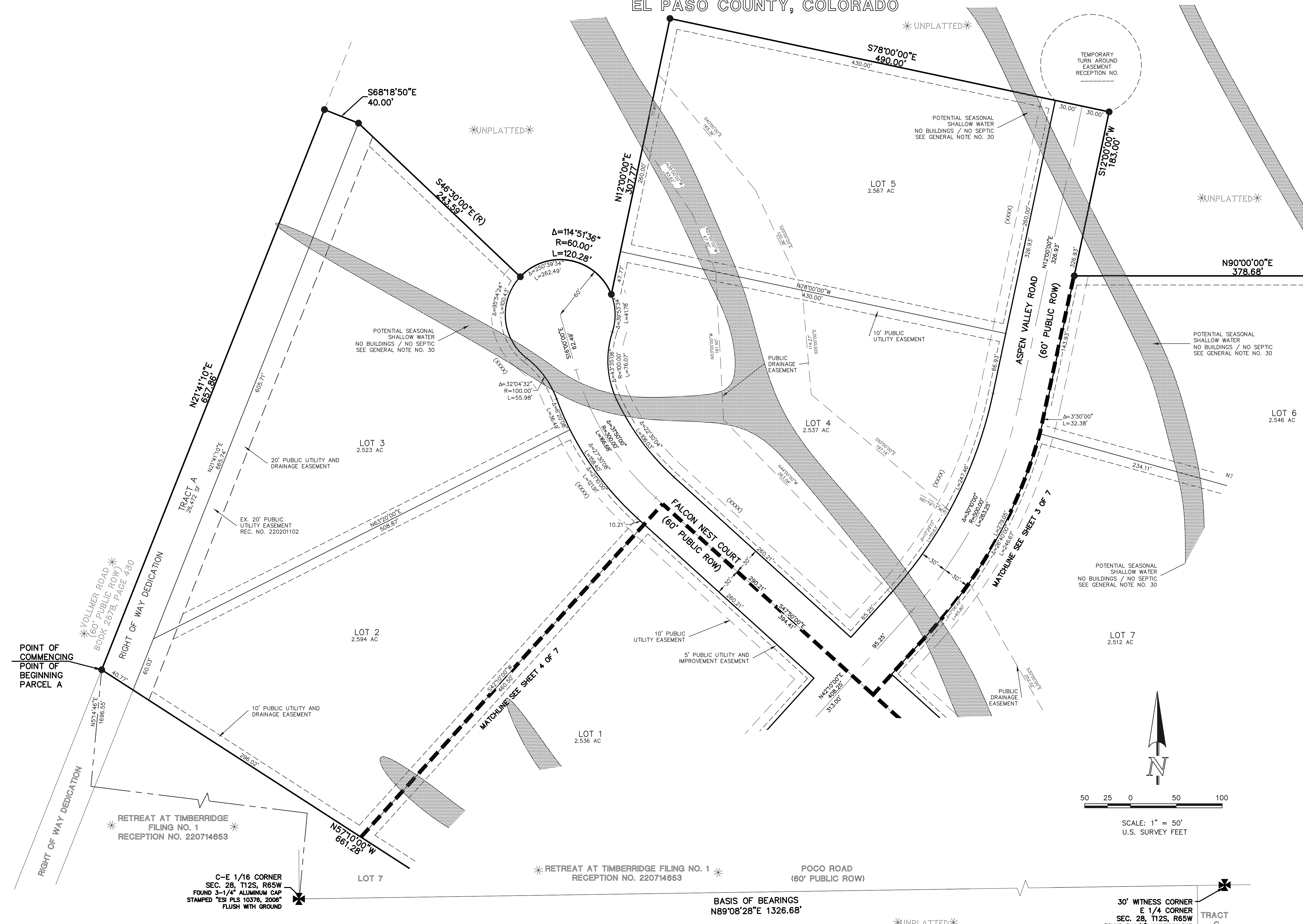
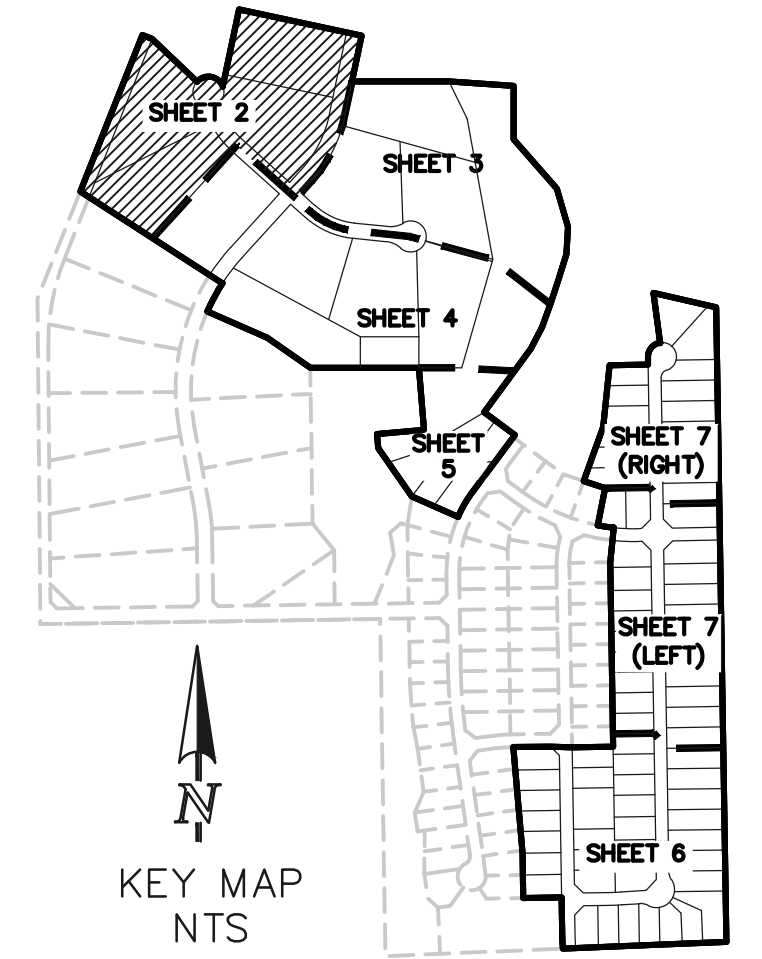


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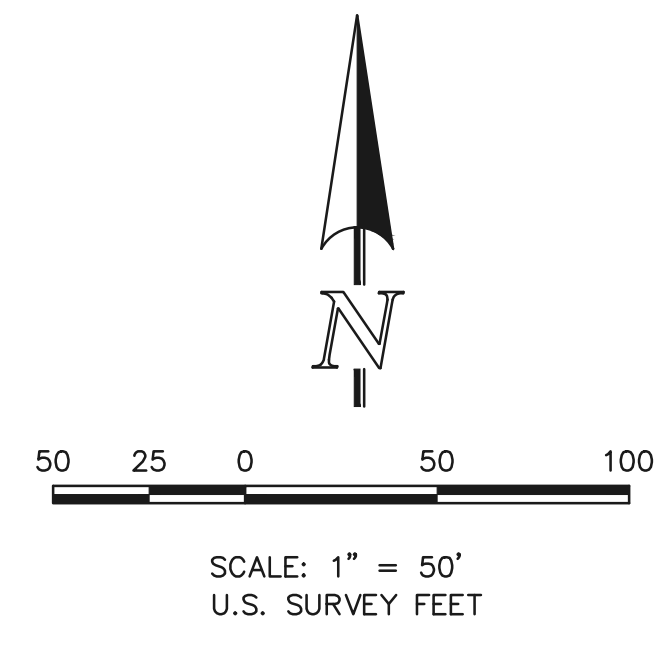


# RETREAT AT TIMBERRIDGE FILING NO. 2

A PORTION OF SECTIONS 27 AND 28,  
TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN,  
EL PASO COUNTY, COLORADO



- LEGEND**
- (R) RADIAL BEARING
  - AC ACRES
  - SF SQUARE FEET
  - 1-1/2" ALUMINUM SURVEYORS' CAP STAMPED "CCS'S LLC PLS 30118" TO BE SET FLUSH W/GROUND UNLESS OTHERWISE NOTED
  - \* NOT PART OF THIS SUBDIVISION
  - (XXXX) ADDRESS



**PRELIMINARY**  
THIS DOCUMENT HAS NOT BEEN  
PLAT CHECKED

RETREAT AT TIMBERRIDGE  
FILING NO. 2  
JOB NO. 1185.20  
JANUARY 4, 2021  
SHEET 2 OF 7



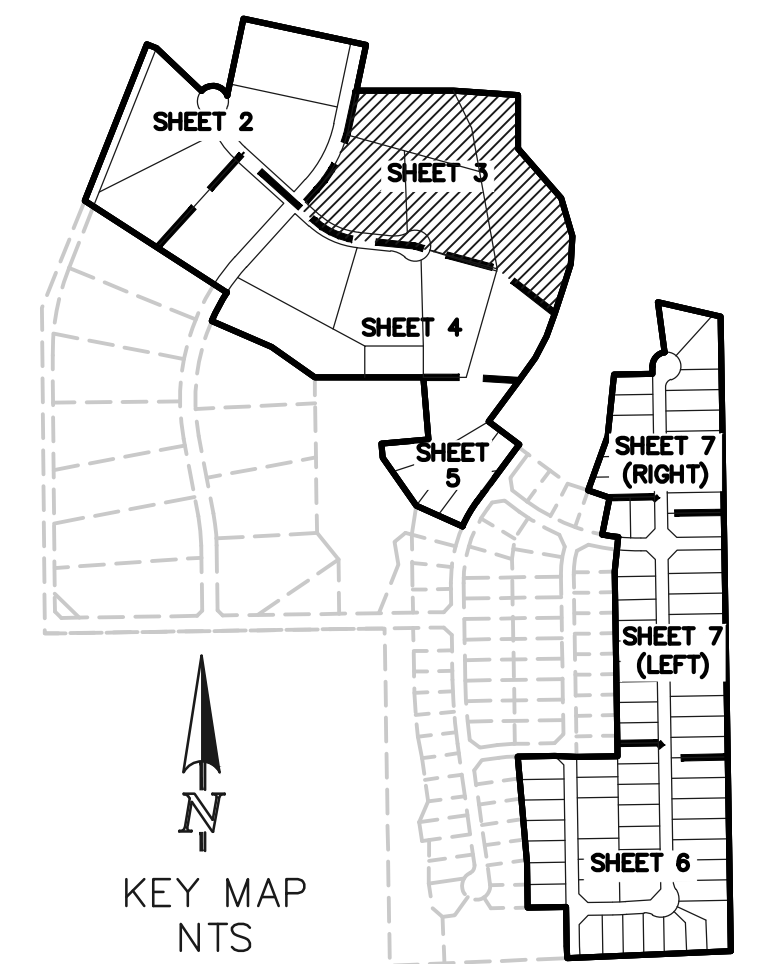
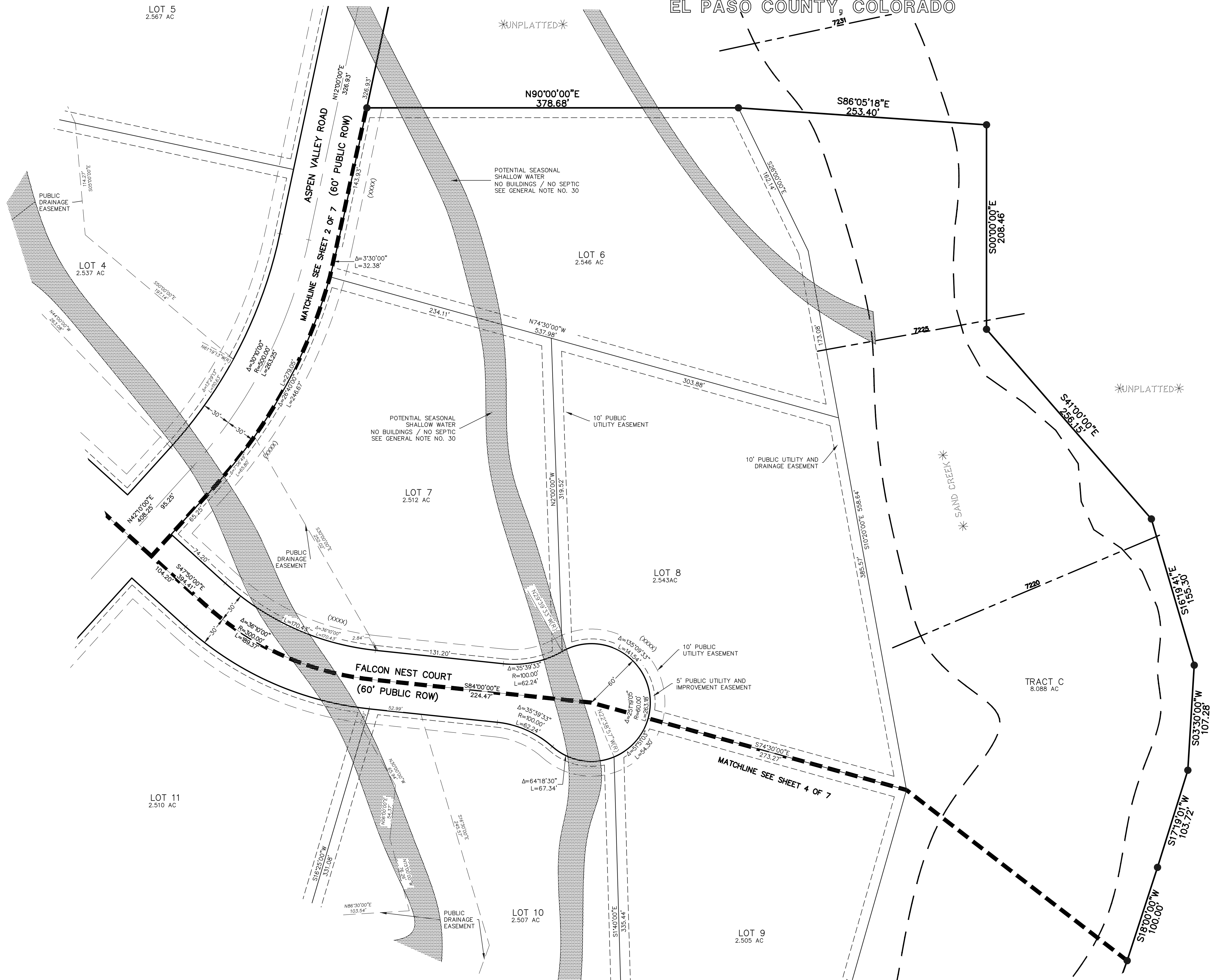
619 N. Cascade Avenue, Suite 200  
Colorado Springs, Colorado 80903 (719)785-0790  
(719)785-0799 (Fax)

PCDD FILE NO.:

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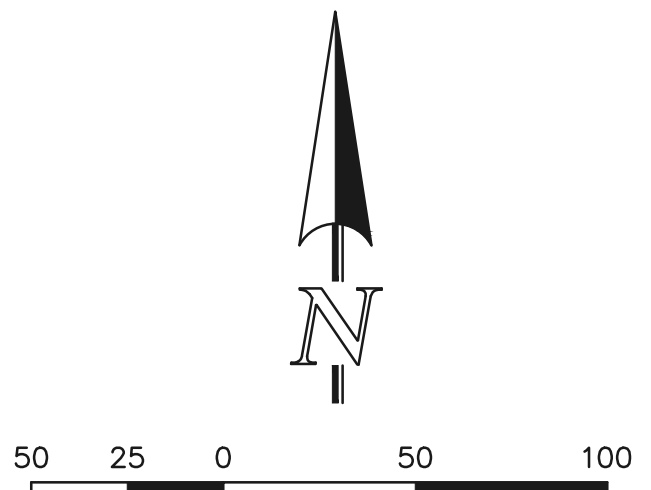
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A PORTION OF SECTIONS 27 AND 28,  
TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN,  
EL PASO COUNTY, COLORADO



### LEGEND

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- AC ACRES
- SF SQUARE FEET
- 1-1/2" ALUMINUM SURVEYORS CAP STAMPED "CCES LLC PLS 30118" TO BE SET FLUSH W/GROUND UNLESS OTHERWISE NOTED
- \* NOT PART OF THIS SUBDIVISION
- (XXXX) ADDRESS
- 7174 BASE FLOOD ELEVATION



SCALE: 1" = 50'  
U.S. SURVEY FEET

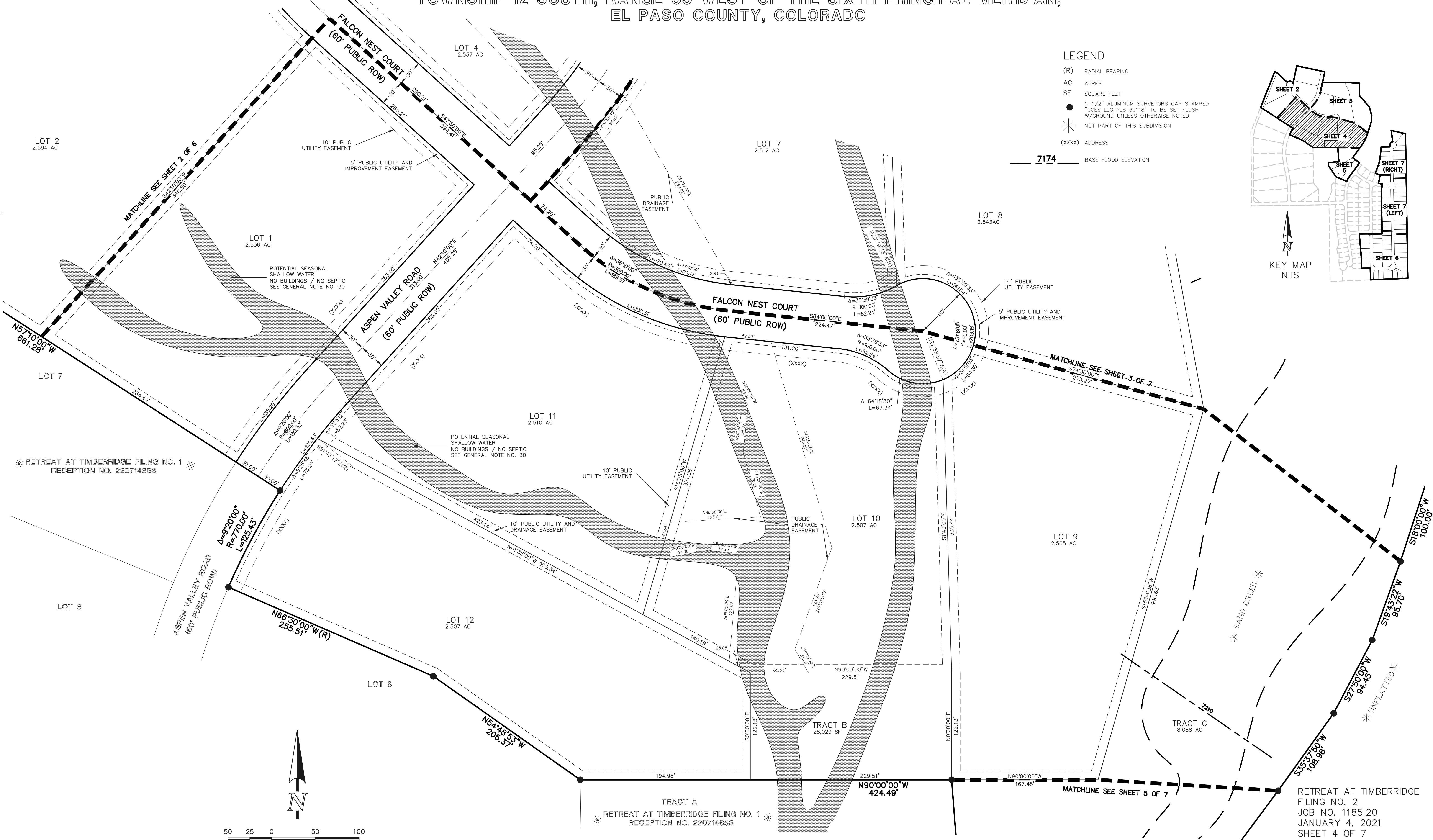
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RETREAT AT TIMBERRIDGE  
FILING NO. 2  
JOB NO. 1185.20  
JANUARY 4, 2021  
SHEET 3 OF 7



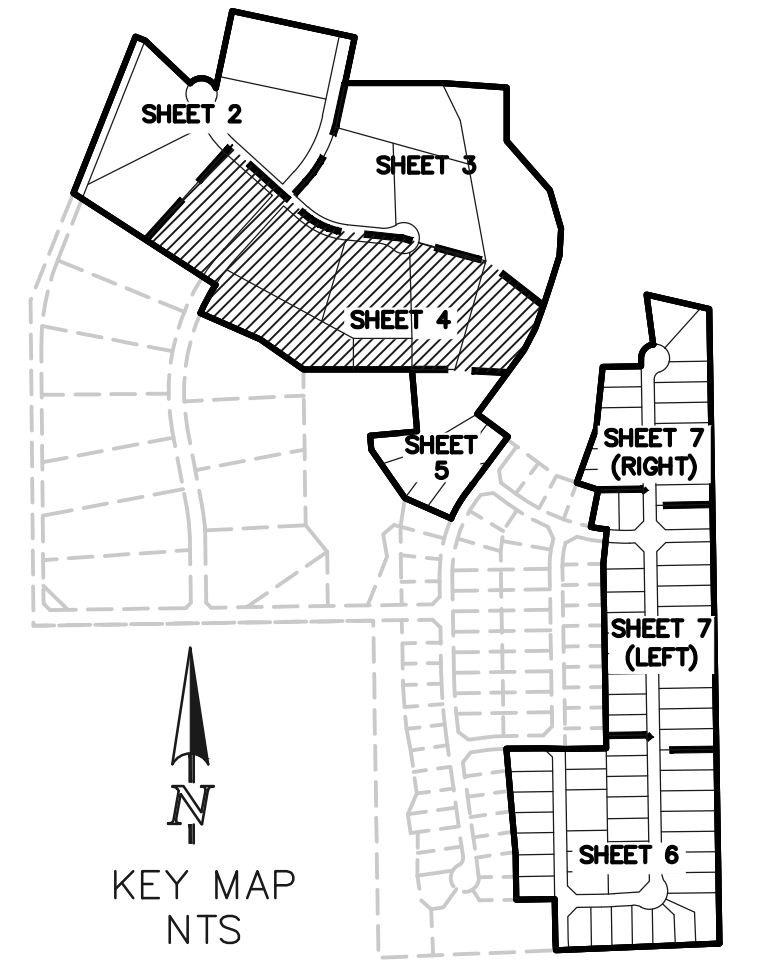
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- AC ACRES
- SF SQUARE FEET
- 1-1/2" ALUMINUM SURVEYORS CAP STAMPED "COCS LLC PLUS 30118" TO BE SET FLUSH W/GROUND UNLESS OTHERWISE NOTED
- ✱ NOT PART OF THIS SUBDIVISION
- (XXXX) ADDRESS
- 7174 — BASE FLOOD ELEVATION



\* RETREAT AT TIMBERRIDGE FILING NO. 1  
RECEPTION NO. 220714653 \*

TRACT A  
RETREAT AT TIMBERRIDGE FILING NO. 1  
RECEPTION NO. 220714653 \*

RETREAT AT TIMBERRIDGE  
FILING NO. 2  
JOB NO. 1185.20  
JANUARY 4, 2021  
SHEET 4 OF 7

**PRELIMINARY**  
THIS DOCUMENT HAS NOT BEEN  
PLAT CHECKED



619 N. Cascade Avenue, Suite 200  
Colorado Springs, Colorado 80903 (719)785-0790  
(719)785-0799 (Fax)

PCDD FILE NO.:

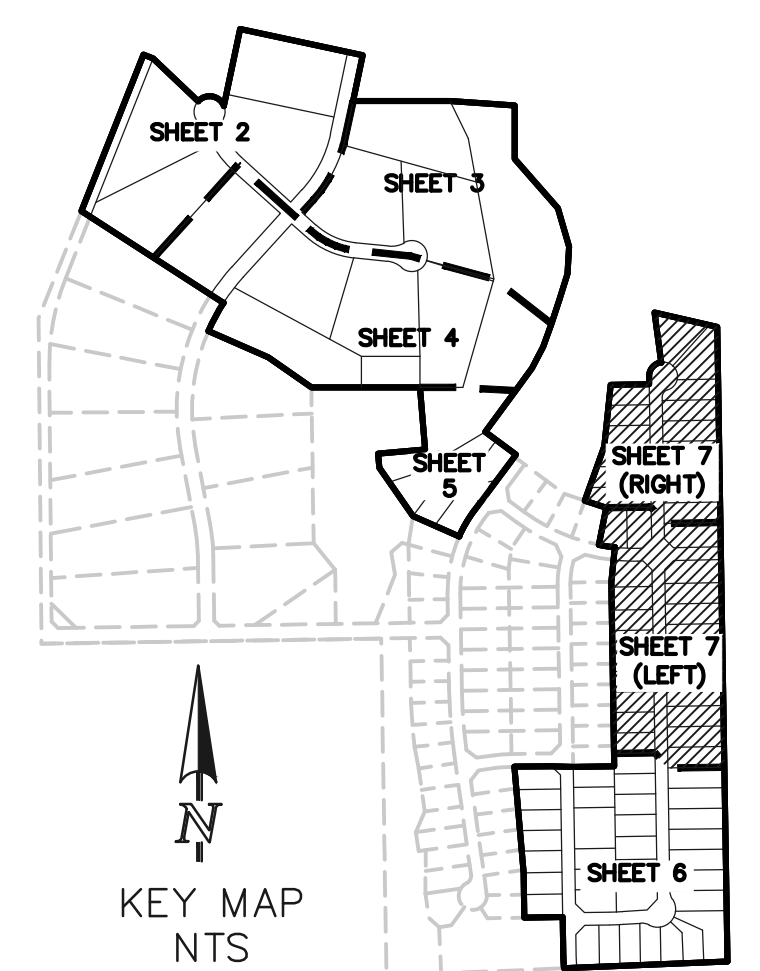
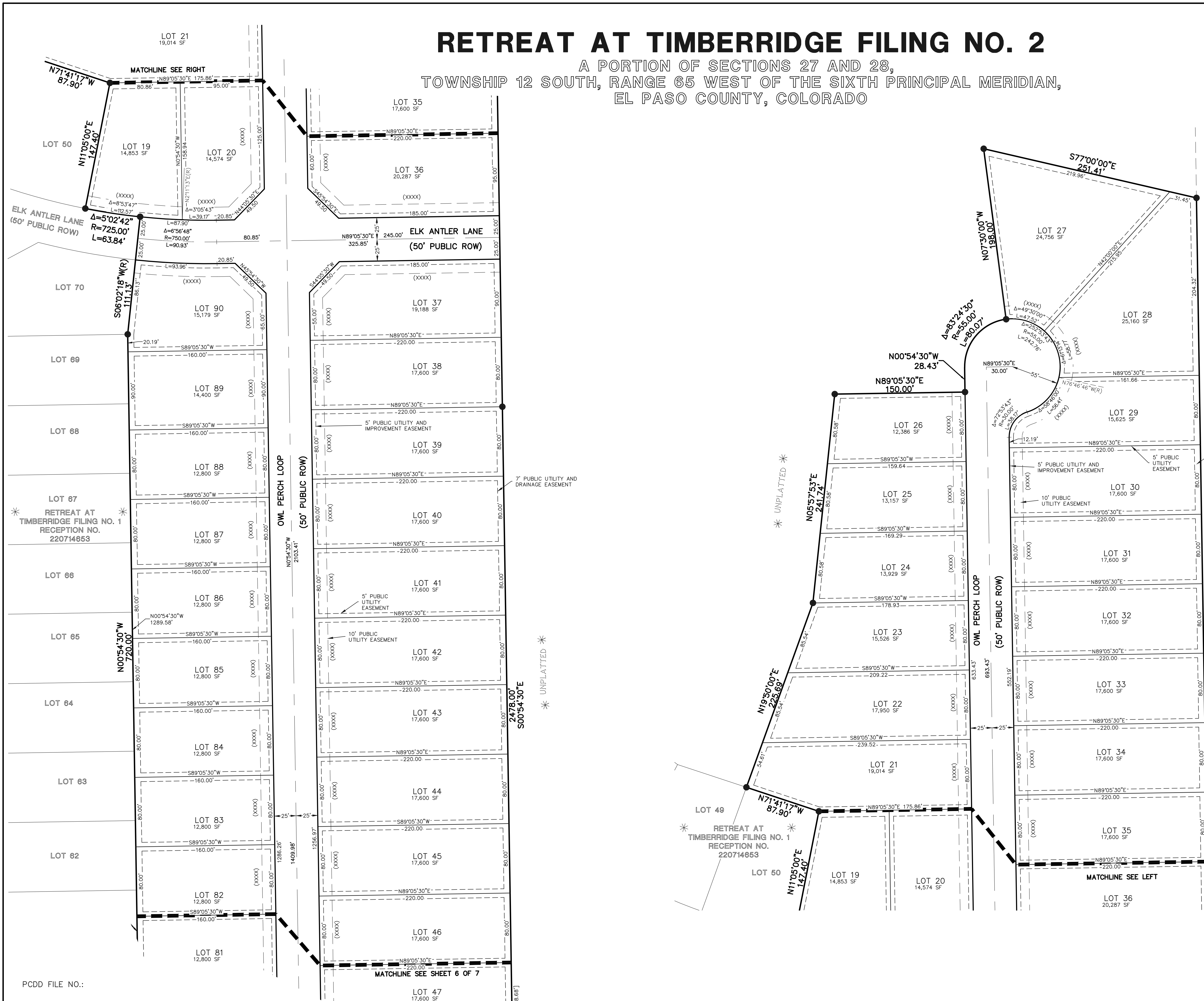
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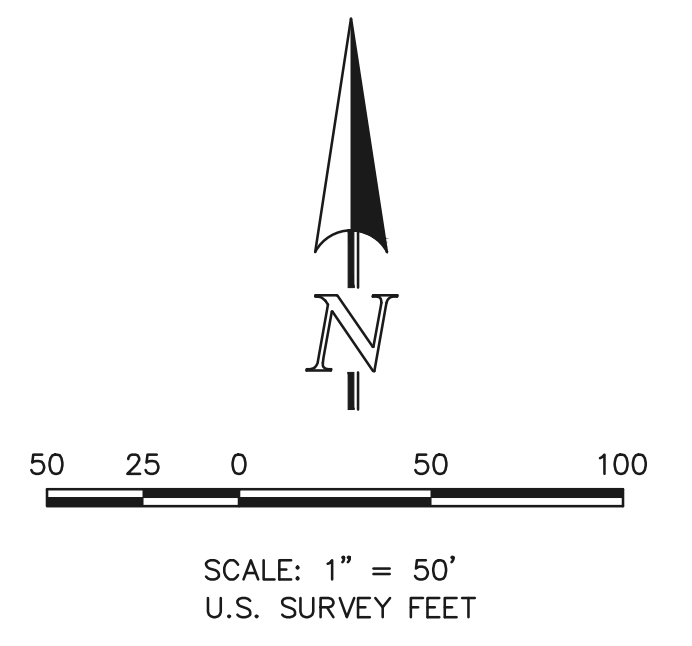


# RETREAT AT TIMBERRIDGE FILING NO. 2

A PORTION OF SECTIONS 27 AND 28,  
TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN,  
EL PASO COUNTY, COLORADO



- LEGEND**
- (R) RADIAL BEARING
  - AC ACRES
  - SF SQUARE FEET
  - 1-1/2" ALUMINUM SURVEYORS CAP STAMPED "CCES LLC PLS 30118" TO BE SET FLUSH W/GROUND UNLESS OTHERWISE NOTED
  - NOT PART OF THIS SUBDIVISION
  - \* UNPLATTED \*
  - (XXXX) ADDRESS



**PRELIMINARY**  
THIS DOCUMENT HAS NOT BEEN  
PLAT CHECKED

RETREAT AT TIMBERRIDGE  
FILING NO. 2  
JOB NO. 1185.20  
JANUARY 4, 2021  
SHEET 7 OF 7



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# *Appendix C*

**Sterling Ranch Metropolitan District  
Comprehensive Water Supply Inventory  
Current Legal Supply**

Land Formation/Aquifer	Reference Finding/Determination/Decree	Tributary Status	Volume	Annual Allocation 100 Year	Annual Allocation 300 Year	Approved Well Locations	Notes	Saturated Sand Thickness	Specific Yield
			Acre-Feet	A-F/Year	A-F/Year				
<b>Currently Available On-Site Sterling Water Legal Sources</b>									
Laramie Fox Hills	86-CW-19 08CW113	NT	53,900	539.00	179.67	KLF-1 - KLF-4	Under 1410 acres Under 41.44 acres, reduced to 1.44 acres	255	15%
Arapahoe	86-CW-18	NT	57500	575.00	191.67	KA-1 - KA-4	Under 1410 acres	240	17%
					<b>371.47</b>				
<b>Off site Bar-X Ground Water Sources (Note 3)</b>									
<b>Portion BarX Purchased</b>									
<b>Currently Owned Off-Site Sterling Water Legal Sources (Bar-X)</b>									
Laramie Fox Hills	93-CW-018 (85CW-445)	NT	42,700	427.00	142.33		Shamrock/Bar-x Rights	200	15%
Arapahoe	93-CW-18 (85CW-445)	NT	4800	48.00	16.00		Shamrock/Bar-x Rights	Quit Claims September 2014	
Denver	93-CW-18 (85CW-445)	NT	6100	61.00	20.33		Shamrock/Bar-x Rights		
Dawson	93-CW-18 (85CW-445)	NNT needs aug	5600	56.00	0.00		Possible to Post Pumping Depletions at Sterling Ranch (20 CW 3059) Needs Future Augmentation		
					<b>178.67</b>				
<b>Currently Available On-Site Retreat Water Legal Sources (Note 1)</b>									
Laramie Fox Hills LFH (Retained Water by predecessor LFH (Relinquishment)	17CW3002 18CW3002	NT NT NT	6,440 -612 -2,796				Under 225.97 acres PPD Augmenting 29 wells	190	15%
Arapahoe	17CW3002	NT	3,032 9,796	30.32 97.96	10.11 32.65		Under 225.97 acres	255	17%
Legal Supply: Phase 3, Phase 4 (excluding Lots 39-41) and Phase 6									
			<b>12,828</b>	<b>128.28</b>	<b>42.76</b>				
Augmentation (Dawson NNT)  (excluding Lots 11-12),	18CW3002	Aug	2,796	27.96	9.32		29 Single Family Wells [Phase 2 (excluding Lots 11-12); Lots 39, 40 & 41 of Phase 4; & 5]		
Augmentation (Dawson NNT)	16CW3095	Aug	1567.5	15.68	5.23		Replace actual depletions		
Legal Supply Phase 1					5.23		10 Single Family Wells (Phase		
<b>Currently Available Off-Site Ground Water Legal Sources</b>									
Augmentation (Dawson NNT)	18CW3005	Aug	240.0	2.40	0.80		(Phase 2 - Lots 11 & 12)		
			<b>240.0</b>	<b>2.4</b>	<b>0.8</b>				
<b>Note 1. The water listed in the shaded area will be used to serve single family wells and is not included in the Total Available for the Central System</b>									
<b>Total Current Available 300-Year Water Supply</b>			<b>592.89 For Sterling Ranch including Retreat Central system</b>						
<b>Case Pending Available On-Site Sterling Water Legal Sources (Note 2)</b>									
Laramie Fox Hills	20CW 3059 (Pending)	NT	2780	27.80	9.27		97.54 acres SR Quarry (Note 5)	190	
Arapahoe	20CW 3059 (Pending)	NNT	4320	43.20	14.40		Augmented via Same Case 97.54 acres SR Quarry (Note 5)	260.5	
Denver	20CW 3059 (Pending)	NNT	4895	48.95	16.32		Augmented via Same Case 97.54 acres SR Quarry (Note 5)	295.2	
Denver	08CW113 Aug 20CW 3059 (Pending)	NNT	72893	728.93	242.98		Sterling Ranch 1410 acres Augmented via Pending Case		
Arapahoe	08CW113 Aug 20CW 3059 (Pending)	NNT	60	0.60	0.20		Sterling Ranch 41.44 reduced to 1.44 acres Augmented via Pending Case		
					<b>283.16</b>				
<b>Total If/When Pending Water Cases 300-Year Water Supply</b>			<b>697.39 For Sterling Ranch including Retreat Central system</b>						

**Sterling Ranch Metropolitan District  
Comprehensive Water Supply Inventory  
Contingent Supplies**

Land Formation/Aquifer	Finding/Determination/Decree	Tributary Status	Volume	Annual Allocation 100 Year	Annual Allocation 300 Year	Approved Well Locations	Notes	Saturated Sand Thickness	Specific Yield
			Acre-Feet	A-F/Year	A-F/Year				
<b>Contingent Un-augmented On-site Sterling Ground Water Sources</b>									
Dawson	08CW113	NNT	39,247	392.5	130.83		Replace actual depletions	145.8	20%
<b>Total Additional Contingent Supply Sterling (needs augmentation)</b>					<b>0.0</b>				
<b>Off site Bar-X Ground Water Sources (Note 4)</b>									
<b>Currently Owned Off-Site Sterling Water Legal Sources (Bar-X)</b>									
<b>Portion remaining under contract</b>									
Laramie Fox Hills	93-CW-018	NT	12,500 -12,500	125.00 -125.00	41.67 -41.67		Set aside for augmentation at Bar-X Shamrock/Bar-x Rights	200	15%
Arapahoe	93-CW-018	NT	74250	738.00	246.00		Shamrock/Bar-x Rights	260	17%
Denver	93-CW-018	NT	119900	1306.33	435.44		Shamrock/Bar-x Rights	435	17%
					<b>681.44</b>				
Dawson	93-CW-018	NNT	149499 194,150	1494.99	498.33		Net Set Aside for Sterling Ranch Post Pumping Depletions (20 CW 3059) Need Augmentation Plan	490	20%
<b>Total Additional Contingent Supply Bar-X (without augmentation)</b>					<b>576.95</b>				
<b>Contingent On-Site The Ranch (Elkhorn) Water Legal Sources WITHIN UBS BOUNDARIES</b>									
Laramie Fox Hills NT	Determination under Section 37- 90-107(7)	receipt 471559-D	17,000	170.00	56.67		646.029 acres		
Arapahoe NT		receipt 471559-C	23600	236.00	78.67		646.029 acres		
Denver NNT		receipt 471559-B	32900	329.00	109.67		646.029 acres		
					<b>245.00</b>				
<b>Contingent Off site McCune Ground Water Sources (Note 5)</b>									
Laramie Fox Hills	1689-BD	NT	26,300	263.00	87.67		900.52 acres		
Arapahoe	1690-BD	NT	39800	398.00	132.67		900.52 acres		
Denver	1691-BD	NT	52800	528.00	176.00		900.52 acres		
					<b>-5.00</b>	Retained Denver Formation Water			
Lower Dawson	1662 BD	NNT	81950.00	819.50					
<b>Total Contingent Supply McCune (without augmentation)</b>					<b>391.33</b>				

**Note 2** Pending Case 20 CW 3059 quantifies NT and NNT groundwater under what is known as the SR Quarry which has been acquired. Additionally, 20 CW 3059 provides an augmentation plan for the NNT Arapahoe and Denver formation water under Sterling Ranch. The post pumping depletions are satisfied by NT water off site from Bar - X Ranch. Current depletions for both the Sterling Ranch and SR Quarry are satisfied by on LIRF credits supported by NT water applied at Sterling Ranch. Additionally, certain on-site ponds are augmented by excess LIRF credits.

**Note 3** This water is NT water owned by Sterling Ranch and is available to be legally used on the Sterling Ranch Site. This water is projected to be dedicated as Augmentation Depletions for NNT Water under Pending case 20 CW 3059. If/when Pending Case 20 CW 3059 is approved in whole or part, this inventory will be adjusted to add any approved augmented NNT water and any and/all augmentation supply, will be shown strictly as dedication to depletions. Until such a time, this water will be shown as legally available for Sterling Ranch.

**Note 4** The sources listed in this segment are under contract to Sterling Ranch. As the Contract "take-down" proceeds, these supplies will become the property of Sterling and can be made available for direct use at Sterling Ranch or as additional augmentation water at Sterling Ranch.

**Note 5** This water is also termed the McCune water. The sources listed in this table are under contract to Sterling.

**Note 5** SR Quarry Water obtained via Deed 5-18. Application for Decree is 20 CW 3059

**Water within Sterling Service Areas**

**Elkhorn or The Ranch**

**Retreat**

**Sterling Ranch and SR Quarry**

**Retreat Individual Wells (not included in overall supply)**



# *Appendix D*

**OFFICE OF THE STATE ENGINEER**  
**COLORADO DIVISION OF WATER RESOURCES**  
818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203  
(303) 866-3581

LIC

WELL PERMIT NUMBER 77785 -F -  
DIV. 2 WD 10 DES. BASIN MD

APPLICANT

MORLEY-BENTLEY INVESTMENTS LLC  
20 BOULDER CRESCENT ST  
COLORADO SPRINGS, CO 80903-

(719) 491-3024

APPROVED WELL LOCATION

EL PASO COUNTY  
NE 1/4 NW 1/4 Section 27  
Township 12 S Range 65 W Sixth P.M.

DISTANCES FROM SECTION LINES

324 Ft. from North Section Line  
2632 Ft. from West Section Line

UTM COORDINATES (Meters, Zone:13,NAD83)

Easting: Northing:

**PERMIT TO CONSTRUCT A WELL**

**ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT**

**CONDITIONS OF APPROVAL**

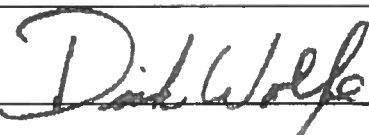
- 1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of this permit does not ensure that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
- 2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.
- 3) Approved pursuant to CRS 37-90-137(4) and the decree granted in case no. 86CW19 Division 2 Water Court. The operation of this well is subject to the terms and conditions of said decree.
- 4) The use of ground water from this well is limited to municipal, domestic, commercial, fire protection, industrial, residential, recreation, irrigation, augmentation, livestock watering and agricultural uses.
- 5) The pumping rate of this well shall not exceed 150 GPM.
- 6) The average annual amount of ground water to be appropriated shall not exceed 539 acre-feet.
- 7) Production is limited to the Laramie-Fox Hills aquifer which is located 2,345 feet below land surface and extends to a depth of 2,630 feet. Plain casing must be installed and grouted to prevent the withdrawal of ground water from other aquifers and the movement of ground water between aquifers.
- 8) The entire length of the hole shall be geophysically logged as required by Rule 9 of the Statewide Nontributary Ground Water Rules prior to installing casing.
- 9) The owner shall mark the well in a conspicuous place with well permit number(s), name of the aquifer, and court case number(s) as appropriate. The owner shall take necessary means and precautions to preserve these markings.
- 10) A totalizing flow meter must be installed on this well and maintained in good working order. Permanent records of all diversions must be maintained by the well owner (recorded at least annually) and submitted to the Division Engineer upon request.
- 11) This well shall be constructed at least 600 feet from any existing well, completed in the same aquifer, that is not owned by the applicant.
- 12) This well shall be constructed not more than 200 feet from the location specified on this permit.
- 13) Pursuant to CRS 37-90-137(9)(b) and the Denver Basin Rules, no more than 98% of the nontributary ground water withdrawn annually shall be consumed and the well owner shall demonstrate to the reasonable satisfaction of the State Engineer that no more than 98% of the water withdrawn will be consumed.
- 14) This well is subject to administration by the Division Engineer in accordance with applicable decrees, statutes, rules, and regulations.

NOTE: The ability of this well to withdraw its authorized amount of water from this non-renewable aquifer may be less than the 100 years upon which the amount of water in the aquifer is allocated, due to anticipated water level declines.

NOTE: To ensure a maximum productive life of this well, perforated casing should be set through the entire producing interval of the approved zone or aquifer indicated above.

NOTE: This permit will expire on the expiration date unless the well is constructed and a pump is installed by that date. A Well Construction and Test Report (GWS-31) and Pump Installation and Test Report (GWS-32) must be submitted to the Division of Water Resources to verify the well has been constructed and the pump has been installed. A one-time extension of the expiration date may be available. Contact the DWR for additional information or refer to the extension request form (GWS-64) available at: <http://www.water.state.co.us>

APPROVED  
IDC

  
State Engineer

  
By  
EXPIRATION DATE 12-19-2014

Receipt No. 3662756

DATE ISSUED 12-19-2013

**OFFICE OF THE STATE ENGINEER**  
**COLORADO DIVISION OF WATER RESOURCES**  
818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203  
(303) 866-3581

LIC

WELL PERMIT NUMBER 77786 - F -  
DIV. 2      WD 10      DES. BASIN      MD

APPLICANT

MORLEY-BENTLEY INVESTMENTS LLC  
20 BOULDER CRESCENT ST  
COLORADO SPRINGS, CO 80903-

(719) 491-3024

APPROVED WELL LOCATION

EL PASO COUNTY  
NE 1/4 NW 1/4 Section 27  
Township 12 S Range 65 W Sixth P.M.

DISTANCES FROM SECTION LINES

304 Ft. from North      Section Line  
2632 Ft. from West      Section Line

UTM COORDINATES (Meters, Zone: 13, NAD83)

Easting:      Northing:

**PERMIT TO CONSTRUCT A WELL**

**ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT**

**CONDITIONS OF APPROVAL**

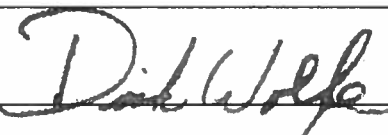
- 1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of this permit does not ensure that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
- 2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.
- 3) Approved pursuant to CRS 37-90-137(4) and the decree granted in case no. 86CW18 Division 2 Water Court. The operation of this well is subject to the terms and conditions of said decree.
- 4) The use of ground water from this well is limited to municipal, domestic, commercial, fire protection, industrial, residential, recreation, irrigation, augmentation, livestock watering and agricultural uses.
- 5) The pumping rate of this well shall not exceed 150 GPM.
- 6) The average annual amount of ground water to be appropriated shall not exceed 575 acre-feet.
- 7) Production is limited to the Arapahoe aquifer which is located 1,585 feet below land surface and extends to a depth of 2,070 feet. Plain casing must be installed and grouted to prevent the withdrawal of ground water from other aquifers and the movement of ground water between aquifers.
- 8) The entire length of the hole shall be geophysically logged as required by Rule 9 of the Statewide Nontributary Ground Water Rules prior to installing casing.
- 9) The owner shall mark the well in a conspicuous place with well permit number(s), name of the aquifer, and court case number(s) as appropriate. The owner shall take necessary means and precautions to preserve these markings.
- 10) A totalizing flow meter must be installed on this well and maintained in good working order. Permanent records of all diversions must be maintained by the well owner (recorded at least annually) and submitted to the Division Engineer upon request.
- 11) This well shall be constructed at least 600 feet from any existing well, completed in the same aquifer, that is not owned by the applicant.
- 12) This well shall be constructed not more than 200 feet from the location specified on this permit.
- 13) Pursuant to CRS 37-90-137(9)(b) and the Denver Basin Rules, no more than 98% of the nontributary ground water withdrawn annually shall be consumed and the well owner shall demonstrate to the reasonable satisfaction of the State Engineer that no more than 98% of the water withdrawn will be consumed.
- 14) This well is subject to administration by the Division Engineer in accordance with applicable decrees, statutes, rules, and regulations.

NOTE: The ability of this well to withdraw its authorized amount of water from this non-renewable aquifer may be less than the 100 years upon which the amount of water in the aquifer is allocated, due to anticipated water level declines.

NOTE: To ensure a maximum productive life of this well, perforated casing should be set through the entire producing interval of the approved zone or aquifer indicated above.

NOTE: This permit will expire on the expiration date unless the well is constructed and a pump is installed by that date. A Well Construction and Test Report (GWS-31) and Pump Installation and Test Report (GWS-32) must be submitted to the Division of Water Resources to verify the well has been constructed and the pump has been installed. A one-time extension of the expiration date may be available. Contact the DWR for additional information or refer to the extension request form (GWS-64) available at: <http://www.water.state.co.us>

APPROVED  
IDC

  
State Engineer

  
By  
EXPIRATION DATE      12-19-2014

Receipt No. 3662757

DATE ISSUED      12-19-2013

<p><b>DISTRICT COURT, WATER DIVISION 2, COLORADO</b></p> <p>Court Address: 501 North Elizabeth Street,        Suite 116        Pueblo, CO 81003</p>	<p>DATE FILED: May 31, 2017 9:37 AM        CASE NUMBER: 2017CW3002</p>
<p><b>CONCERNING THE APPLICATION FOR WATER RIGHTS OF:</b></p> <p><b>ARROYA INVESTMENTS, LLC, JACOB DECOTO, MARVIN ORNES and TERRI WAHLBERG</b></p> <p><b>IN EL PASO COUNTY</b></p>	<p>▲ COURT USE ONLY ▲</p> <hr/> <p>Case No.: 17CW3002</p>
<p><b>FINDINGS OF FACT, CONCLUSIONS OF LAW, RULING OF REFEREE AND DECREE</b></p>	

THIS MATTER comes before the Water Referee on the Application filed by Arroya Investments, LLC, Jacob Decoto, Marvin Ornes and Terri Wahlberg, and having reviewed said Application and other pleadings on file, and being fully advised on this matter, the Water Referee makes the following findings and orders:

**GENERAL FINDINGS OF FACT**

1. The applicants in this case are Arroya Investments, LLC (“Arroya”), Jacob Decoto (“Decoto”), Marvin Ornes (“Ornes”) and Terri Wahlberg (“Wahlberg”) (collectively, “Applicants”). Applicants are, collectively, the owners of the four separately owned parcels of land totaling approximately 335.59 acres under which the groundwater sought to be adjudicated herein are located, and are likewise the owners of the place of use where the water is anticipated to be put to beneficial use.
2. The Applicants filed this Application with the Water Court for Water Division 2 on January 31, 2017. The Application was referred to the Water Referee by order of the Court dated February 2, 2017.
3. The time for filing statements of opposition to the Application expired on the last day of March, 2017, and a no statements of opposition were timely filed.
4. On February 2, 2017, the Division 2 Water Court ordered that publication occur in the *Daily Transcript* within El Paso County.
5. The Clerk of this Court has caused publication of the Application filed in this matter as provided by statute and the publication costs have been paid. On February 15, 2017, proof of publication in the *Daily Transcript* was filed with the Court. All notices of the Application have been given in the manner required by law.

6. Pursuant to C.R.S. §37-92-302(2), the Office of the State Engineer has filed Determination of Facts for each aquifer with this Court dated March 14, 2017.

7. Pursuant to C.R.S. §37-92-302(4), the office of the Division Engineer for Water Division 2 filed its Consultation Report dated March 29, 2017, with the Court. The Consultation Report has been considered by the Water Referee in the entry of this Ruling.

8. The Water Court has jurisdiction over the subject matter of these proceedings and over all who have standing to appear as parties whether they have appeared or not. The land and water rights involved in this case are not within a designated groundwater basin.

### **GROUNDWATER RIGHTS**

9. The Applicants requested the adjudication and quantification all Denver Basin groundwater in each aquifer underlying the four (4) specifically described parcels of land owned by each of the Applicants, respectively, as described herein. No plan for augmentation for the use of the not-nontributary groundwater was sought or is decreed herein. The Applicants shall construct such wells as necessary for withdrawal of Applicants' full entitlements of water supplies decreed herein. The following findings are made with respect to such underground water rights:

A. Property Description. All wells to all aquifers will be located on the Applicants respective properties. Such Properties are more specifically described as follows:

i. Arroya Parcel. The "Arroya Parcel" is an approximately 226 acre parcel located in the SE1/4 SE1/4 of Section 21, the W1/2 SW1/4 of Section 22, the E1/2 NE1/4 of Section 28, the W1/2 NW1/4 and the NW1/4 SW1/4 of Section 27, all in Township 21 South, Range 65 West of the 6<sup>th</sup> P.M., El Paso County, Colorado, as more particularly described on attached **Exhibit A**, and depicted on attached **Exhibit E**. The Arroya Parcel is owned by Applicant Arroya Investments, LLC.

ii. West Parcel No. 1. The "West Parcel No. 1" is an approximately 36.01 acre parcel located in the SW1/4 SE1/4 and the SE1/4 SE1/4 of Section 21, and the NE1/4 NE1/4 of Section 27, Township 12 South, Range 65 West of the 6<sup>th</sup> P.M., El Paso County, Colorado, as more particularly described on attached **Exhibit B**, and depicted on attached **Exhibit E**. The West Parcel No. 1 is owned by Applicant Jacob Decoto.

iii. West Parcel No. 2. The "West Parcel No. 2" is an approximately 36.03 acre parcel located in the SW1/4 SE1/4 and the SE1/4 SE1/4 of Section 21, Township 12 South, Range 65 West of the 6<sup>th</sup> P.M., El Paso County, Colorado, as more particularly described on attached **Exhibit C**, and depicted on attached **Exhibit E**. The West Parcel No. 2 is owned by Applicant Jacob Decoto.

iv. West Parcel No. 3. The “West Parcel No. 3” is an approximately 37.58 acre parcel located in the NW1/4 SE1/4 and the NE1/4 SE1/4 of Section 21, Township 12 South, Range 65 West of the 6<sup>th</sup> P.M., El Paso County, Colorado, as more particularly described on attached **Exhibit D**, and depicted on attached **Exhibit E**. The West Parcel No. 3 is owned by Applicants Marvin Ornes and Terri Wahlberg.

B. Existing Wells. There is currently one (1) existing well constructed to the Dawson aquifer on West Parcel No. 2 (Decoto): DWR Permit No. 4554, an exempt domestic well. DWR Permit No. 4554 is an exempt structure; water from the Dawson aquifer sufficient to allow for such continued exempt use has been excluded from the quantification herein. Two additional exempt domestic wells have been permitted since the filing of the application in this matter, DWR Permit No. 304551 on West Parcel No. 1 (Decoto), and DWR Permit No. 304498 on West Parcel No. 3 (Ornes/Wahlberg), and are excluded from quantification herein.

C. Additional Wells. Applicants anticipated additional wells will be constructed on each the Applicants’ respective properties. To the extent any additional wells may be constructed to the not-nontributary Dawson and/or Denver aquifer(s), such wells may be constructed only pursuant to a subsequent decree providing an approved plan for augmentation, or as exempt well structures pursuant to C.R.S. §37-92-602.

10. Of the statutorily described Denver Basin aquifers, the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers all exist beneath the Applicants’ respective properties. The Dawson and Denver aquifers contain not-nontributary water, while the water of the Arapahoe and Laramie-Fox Hills aquifers underlying the Applicants’ respective properties is nontributary. The quantity of water in the Denver Basin aquifers exclusive of artificial recharge underlying each of the Applicants’ respective properties as allocated on a pro-rata per acre basis from the amounts described in the State Engineer’s Determination of Facts, is as follows:

A. Arroya Parcel (225.97 acres):

<b>Aquifer</b>	<b>Sand Thickness (Feet)</b>	<b>Total Ground Water Storage (Acre Feet)</b>	<b>Annual Average Withdrawal – 100 Years (Acre Feet)</b>
Dawson (NNT)	270	12,202	122
Denver (NNT)	310	11,909	119.1
Arapahoe (NT)	255	9,796	98
Laramie-Fox Hills (NT)	190	6,440	64.4

B. West Parcel No. 1 (Decoto – 36.01 acres):

<b>Aquifer</b>	<b>Sand Thickness (Feet)</b>	<b>Total Ground Water Storage (Acre Feet)</b>	<b>Annual Average Withdrawal – 100 Years (Acre Feet)</b>
Dawson (NNT)	270	1,944.4	16.44 <sup>1</sup>
Denver (NNT)	310	1,897.7	18.98
Arapahoe (NT)	255	1,561	15.61
Laramie-Fox Hills (NT)	190	1,026.2	10.26

C. West Parcel No. 2 (Decoto – 36.03 acres):

<b>Aquifer</b>	<b>Sand Thickness (Feet)</b>	<b>Total Ground Water Storage (Acre Feet)</b>	<b>Annual Average Withdrawal – 100 Years (Acre Feet)</b>
Dawson (NNT)	270	1,945.4	16.45 <sup>2</sup>
Denver (NNT)	310	1,898.8	18.99
Arapahoe (NT)	255	1,562	15.62
Laramie-Fox Hills (NT)	190	1,026.8	10.27

D. West Parcel No. 3 (Ornes & Wahlberg – 37.58 acres):

<b>Aquifer</b>	<b>Sand Thickness (Feet)</b>	<b>Total Ground Water Storage (Acre Feet)</b>	<b>Annual Average Withdrawal – 100 Years (Acre Feet)</b>
Dawson (NNT)	270	2,029.2	17.29 <sup>3</sup>
Denver (NNT)	310	1,980.5	19.80
Arapahoe (NT)	255	1,629	16.29
Laramie-Fox Hills (NT)	190	1,071	10.7

<sup>1</sup> Three (3) annual acre feet of Dawson groundwater has been reserved from quantification herein for permitting of an exempt domestic well on this parcel pursuant to C.R.S. §37-92-602, *et seq.*, recently permitted as DWR Permit No. 304551.

<sup>2</sup> Three (3) annual acre feet of Dawson groundwater has been reserved from quantification herein for continued use of DWR Permit No. 4554 as an exempt domestic well on this parcel pursuant to C.R.S. §37-92-602, *et seq.*

<sup>3</sup> Three (3) annual acre feet of Dawson groundwater has been reserved from quantification herein for permitting of an exempt domestic well on this parcel pursuant to C.R.S. §37-92-602, *et seq.*, recently permitted as DWR Permit No. 304498.

11. Pursuant to §37-90-137(9)(c.5)(I), C.R.S., the augmentation requirements for wells in the Dawson aquifer require the replacement to the effected stream systems of actual stream depletions on an annual basis, to the extent necessary to prevent injurious effect, based upon actual aquifer conditions. The augmentation requirements for wells to the Denver aquifer are for 4% of pumping. Applicants shall not be entitled to construct a non-exempt well or use water from the not-nontributary Dawson or Denver aquifers except pursuant to an approved augmentation plan in accordance with C.R.S. §37-90-137(9)(c.5).

12. Applicants shall be entitled to withdraw all legally available groundwater in the Denver Basin aquifers underlying Applicants' respective properties. Said amounts can be withdrawn over the 100-year life for the aquifers as set forth in C.R.S. §37-90-137(4), or withdrawn over a longer period of time based upon local governmental regulations or Applicants' water needs. The average annual amounts of ground water available for withdrawal from the underlying Denver Basin aquifers, based upon the 100-year aquifer life is determined and set forth above, based upon the March 14, 2017 Office of the State Engineer Determination of Facts. Such groundwater may be withdrawn from wells located upon the overlying land or contiguous properties with such contiguity to allow such withdrawal, consistent with the Denver Basin Rules as promulgated by the Office of the State Engineer, as may be amended from time to time.

13. Applicants shall be entitled to withdraw an amount of groundwater in excess of the average annual amount decreed herein from the Denver Basin aquifers underlying Applicants' respective properties, so long as the sum of the total withdrawals from wells in the aquifer does not exceed the product of the number of years since the date of issuance of the original well permit or the date of entry of the decree herein, whichever comes first, and the annual volume of water which Applicants are entitled to withdraw from the aquifer underlying Applicants' respective properties.

14. The Applicants shall have the right to use the ground water for beneficial uses on or off the Applicants' respective properties consisting of domestic, commercial, irrigation, stock water, recreation, wildlife, wetlands, fire protection, piscatorial, and for storage and augmentation associated with such uses. The amount of groundwater decreed for such uses upon the Applicants' respective properties is reasonable as such uses are to be made for the long term use and enjoyment of the Applicants' respective properties and are to establish and provide for adequate water reserves. The nontributary groundwater, may be used, reused, and successively used to extinction, both on and off the Applicants' respective properties subject, however, to the relinquishment of the right to consume two percent of such nontributary water withdrawn. Applicants may use such water by immediate application or by storage and subsequent application to the beneficial uses and purposes stated herein. Provided however, as set forth above, Applicants shall only be entitled to construct a non-exempt well or use water from the not-nontributary Dawson and Denver aquifers pursuant to a decreed augmentation plan entered by the Court. Withdrawals of groundwater available from the nontributary aquifers beneath the Applicants' respective properties in the



amounts determined in accordance with the provisions of this decree will not result in material injury to any other vested water rights or to any other owners or users of water.

15. Applicants may construct such wells on their respective properties as necessary for the withdrawal of all entitlements from each aquifer as described above, and such withdrawals may be made through any combination of wells. As to each of Applicants' respective properties, these wells shall be treated as a well field.

### **CONCLUSIONS OF LAW**

16. The application for adjudication of Denver Basin groundwater was filed with the Water Clerk for Water Division 2 pursuant to C.R.S. §§37-92-302(1)(a) and 37-90-137(9)(c).

17. The Applicants' request for adjudication of these water rights is contemplated and authorized by law, and this Court and the Water Referee have exclusive jurisdiction over these proceedings. C.R.S. §§37-92-302(1)(a), 37-92-203, and 37-92-305.

18. Subject to the terms of this decree, the Applicants are entitled to the sole right to withdraw all the legally available water in the Denver Basin aquifers underlying the Applicants' respective properties, and the right to use that water to the exclusion of all others subject to the terms of this decree.

19. The Applicants have complied with C.R.S. §37-90-137(4), and the groundwater is legally available for withdrawal by the requested nontributary well(s), and legally available for withdrawal by the requested not-nontributary well(s) upon the entry of a subsequent decree approving an augmentation plan pursuant to C.R.S. §37-90-137(9)(c.5). Applicants are entitled to a decree from this Court confirming their rights to withdraw groundwater pursuant to C.R.S. §37-90-137(4).

20. The Denver Basin water rights applied for in this case are not conditional water rights, but are vested water rights determined pursuant to C.R.S. §37-90-137(4). No applications for diligence are required. The claims for nontributary and not-nontributary groundwater meet the requirements of Colorado Law.

21. The determination and quantification of the nontributary and not-nontributary groundwater rights in the Denver Basin aquifers as set forth herein is contemplated and authorized by law. C.R.S. §§37-90-137, and 37-92-302 through 37-92-305.

**IT IS THEREFORE ORDERED, ADJUDGED AND DECREED AS FOLLOWS:**

22. All of the foregoing Findings of Fact and Conclusions of Law are incorporated herein by reference, and are considered to be a part of this decretal portion as though set forth in full.

23. The Application for Adjudication of Denver Basin Groundwater proposed by the Applicants is approved, subject to the terms of this decree.

24. The Applicants have furnished acceptable proof as to all claims and, therefore, the Application for Adjudication of Groundwater as requested by the Applicants is granted and approved in accordance with the terms and conditions of this decree. Approval of this Application will not result in any material injury to senior vested water rights.

25. The Applicants shall comply with C.R.S. §37-90-137(9)(b), requiring the relinquishment of the right to consume two percent (2%) of the amount of the nontributary groundwater withdrawn. Ninety-eight percent (98%) of the nontributary groundwater withdrawn may therefore be consumed. No plan for augmentation shall be required to provide for such relinquishment.

26. The Court retains jurisdiction over this matter to make adjustments in the allowed average annual amount of withdrawal from the Denver Basin aquifers, either upwards or downwards, to conform to actual local aquifer characteristic, and that the Applicants need not refile, republish, or otherwise amend this application to request such adjustments.

A. At such time as adequate data may be available, Applicant or the State Engineer may invoke the Court's retained jurisdiction as provided in this Paragraph 26 for purposes of making a final determination of water rights as to the quantities of water available and allowed average annual withdrawals from any of the Denver Basin aquifers quantified and adjudicated herein. Any person seeking to invoke the Court's retained jurisdiction for such purpose shall file a verified petition with the Court setting forth with particularity the factual basis for such final determination of Denver Basin water rights under this decree, together with the proposed decretal language to effect the petition. Within four months of the filing of such verified petition, the State Engineer's Office shall utilize such information as available to make a final determination of water rights finding, and shall provide such information to the Court, Applicant, and the petitioning party.

B. If no protest is filed with the Court to such findings by the State Engineer's Office within sixty (60) days, this Court shall incorporate by entry of an Amended Decree such "final determination of water rights", and the provisions of this Paragraph 26 concerning adjustments to the Denver Basin ground water rights based upon local aquifer conditions shall no longer be applicable. In the event of a protest

being timely filed, or should the State Engineer's Office make no timely determination as provided in Paragraph 26.A., above, the "final determination of water rights" sought in the petition may be made by the Water Court after notice to all parties and following a full and fair hearing, including entry of an Amended Decree, if applicable in the Court's reasonable discretion.

27. Pursuant to C.R.S. §37-92-502(5)(a), the Applicants shall install and maintain such water measurement devices and recording devices as are deemed essential by the State Engineer or Division Engineers, and the same shall be installed and operated in accordance with instructions from said entities. Applicants are to install and maintain a totalizing flow meter on all wells, and any additional or replacement wells. Applicants are also to maintain records and provide reports to the State Engineer or Division Engineers as instructed by said entities, on at least an annual basis.

28. The vested water rights and water right structures decreed herein shall be subject to all applicable administrative rules and regulations, as currently in place or as may in the future be promulgated, of the offices of Colorado State and Division Engineers for administration of such water rights, to the extent such rules and regulations are uniformly applicable to other similarly situated water rights and water users.

29. This Ruling of Referee, when entered as a decree of the Water Court, shall be recorded in the real property records of El Paso County, Colorado. Copies of this ruling shall be mailed as provided by statute.

DATED THIS 5th day of May, 2017.

BY THE REFEREE:



*Mardell R. DiDomenico*

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Mardell R. DiDomenico, Water Referee  
Water Division 2

**DECREE**

THE COURT FINDS THAT NO PROTEST WAS MADE IN THIS MATTER, THEREFOR THE FORGOING RULING IS CONFIRMED AND APPROVED, AND IS HEREBY MADE THE JUDGMENT AND DECREE OF THIS COURT.

Dated: May 31, 2017.



BY THE COURT:

  
LARRY C. SCHWARTZ, WATER JUDGE  
WATER DIVISION 2

# EXHIBIT A

## LEGAL DESCRIPTION – ARROYA PARCEL

A PARCEL OF LAND LOCATED IN A PORTION OF THE SOUTHEAST ONE-QUARTER (SE1/4) OF SECTION 21 AND A PORTION OF THE SOUTHWEST ONE-QUARTER OF SECTION 22, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: A LINE BETWEEN THE NORTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27 AND THE SOUTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4) OF SAID SECTION 27, TOWNSHIP 12 SOUTH, RANGE 65 WEST, MONUMENTED AT THE NORTHERLY END BY A 3-1/4" ALUMINUM CAP STAMPED "2006 ESI PLS 10376" AND MONUMENTED AT THE SOUTHERLY END BY A 3-1/4" ALUMINUM CAP STAMPED "2006 ESI PLS 10376" AND IS ASSUMED TO BEAR  $S00^{\circ}54'30''E$ , A DISTANCE OF 3925.63 FEET;

COMMENCING AT THE NORTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27;  
THENCE  $S88^{\circ}38'56''W$  ALONG THE NORTH LINE OF SAID NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4), A DISTANCE OF 1047.88 FEET TO THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED;

THENCE  $S88^{\circ}38'56''W$  CONTINUING ALONG SAID NORTH LINE, A DISTANCE OF 283.03 FEET TO THE NORTHWEST CORNER OF SAID SECTION 27 SAID POINT ALSO BEING A POINT ON THE EASTERLY RIGHT-OF-WAY LINE AS DESCRIBED IN THE DEED, AS RECORDED IN BOOK 2678 AT PAGE 431 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER;

THENCE ALONG THE EASTERLY AND NORTHERLY RIGHT-OF-WAY LINES OF SAID DEED THE FOLLOWING TWO (2) COURSES:

1.  $N00^{\circ}37'14''W$  SAID LINE ALSO BEING THE WEST LINE OF THE SOUTHWEST ONE-QUARTER (SW1/4) OF SAID SECTION 22, A DISTANCE OF 30.00 FEET;
2.  $S89^{\circ}40'23''W$ , A DISTANCE OF 736.82 FEET TO THE POINT OF INTERSECTION OF THE EASTERLY RIGHT-OF-WAY LINE AS DESCRIBED IN THE DEED, AS RECORDED IN BOOK 2678 AT PAGE 430 OF SAID COUNTY RECORDS;

THENCE  $N21^{\circ}41'10''E$  ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 1798.07 FEET;

THENCE  $N59^{\circ}58'50''E$ , A DISTANCE OF 694.83 FEET;

THENCE  $S14^{\circ}30'58''E$ , A DISTANCE OF 567.09 FEET;

THENCE  $N69^{\circ}36'18''E$ , A DISTANCE OF 603.87 FEET;

THENCE  $S30^{\circ}23'46''E$ , A DISTANCE OF 264.58 FEET;

THENCE  $S61^{\circ}52'38''W$ , A DISTANCE OF 227.40 FEET;

THENCE  $S79^{\circ}15'47''W$ , A DISTANCE OF 276.17 FEET;

THENCE  $S89^{\circ}39'18''W$ , A DISTANCE OF 356.07 FEET;

THENCE  $S40^{\circ}09'47''W$ , A DISTANCE OF 310.61 FEET;

THENCE  $S09^{\circ}56'46''W$ , A DISTANCE OF 270.03 FEET;

THENCE  $S35^{\circ}00'25''W$ , A DISTANCE OF 167.38 FEET;

THENCE  $S57^{\circ}24'01''W$ , A DISTANCE OF 235.36 FEET;

THENCE  $S27^{\circ}23'34''E$ , A DISTANCE OF 611.29 FEET TO THE POINT OF BEGINNING;

SAID PARCEL OF LAND CONTAINS A CALCULATED AREA OF 35.08 ACRES OF LAND, MORE OR LESS.

Along With:

A PARCEL OF LAND BEING THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27, THE SOUTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (SW1/4 NW1/4) OF SECTION 27, THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4) OF SECTION 27, A PORTION OF THE SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER OF SECTION 28 AND A PORTION OF THE NORTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (NE1/4 NE1/4) OF SECTION 28, ALL IN TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: A LINE BETWEEN THE NORTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27 AND THE SOUTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4) OF SAID SECTION 27, TOWNSHIP 12 SOUTH, RANGE 65 WEST, MONUMENTED AT THE NORTHERLY END BY A 3-1/4" ALUMINUM CAP STAMPED "2006 ESI PLS 10376" AND MONUMENTED AT THE SOUTHERLY END BY A 3-1/4" ALUMINUM CAP STAMPED "2006 ESI PLS 10376" AND IS ASSUMED TO BEAR S00°54'30"E, A DISTANCE OF 3925.63 FEET;

COMMENCING AT THE NORTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27, SAID POINT ALSO BEING THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED;

THENCE S00°54'30"E ALONG THE EAST LINE OF THE WEST ONE-HALF (W1/2) OF SAID SECTION 27, A DISTANCE OF 3925.63 FEET TO THE SOUTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4) OF SAID SECTION 27;

THENCE S87°35'00"W ALONG THE SOUTH LINE OF SAID NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4), A DISTANCE OF 1332.78 FEET TO THE SOUTHWEST CORNER OF SAID NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4);

THENCE N00°53'18"W ALONG THE WEST LINE OF SAID NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4), A DISTANCE OF 1316.78 FEET TO THE NORTHWEST CORNER OF SAID NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4);

THENCE S89°08'28"W ALONG THE SOUTH LINE OF THE SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (SE1/4 NE1/4) OF SECTION 28, A DISTANCE OF 1326.68 FEET TO THE SOUTHWEST CORNER OF SAID SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (SE1/4 NE1/4);

THENCE N00°30'49"W ALONG THE WEST LINE OF SAID SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (SE1/4 NE1/4), A DISTANCE OF 1270.77 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE AS DESCRIBED IN THE DEED, AS RECORDED IN

BOOK 2678 AT PAGE 430 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER;

THENCE N21°41'10"E ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 1450.84 FEET TO THE POINT OF INTERSECTION OF THE SOUTHERLY RIGHT-OF-WAY LINE AS DESCRIBED IN THE DEED, AS RECORDED IN BOOK 2678 AT PAGE 431 OF SAID COUNTY RECORDS;

THENCE ALONG THE SOUTHERLY AND EASTERLY RIGHT-OF-WAY LINES OF SAID DEED THE FOLLOWING TWO (2) COURSES:

1. N89°40'23"E, A DISTANCE OF 761.52 FEET TO A POINT ON THE EAST LINE OF SAID NORTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (NE1/4 NE1/4);
2. N00°52'58"W ALONG SAID EAST LINE, A DISTANCE OF 30.00 FEET TO THE NORTHWEST CORNER OF SAID SECTION 27;

THENCE N88°38'56"E ALONG THE NORTH LINE OF SAID NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW 1/4 NW1/4), A DISTANCE OF 1330.91 FEET TO THE POINT OF BEGINNING;

SAID PARCEL OF LAND CONTAINS A CALCULATED AREA OF 190.89 ACRES OF LAND, MORE OR LESS.

Attachment to Order - 2017-0173002

## EXHIBIT B

### LEGAL DESCRIPTION TRAILS AT TIMBERLINE WEST PARCEL 1:

A PARCEL OF LAND LOCATED IN A PORTION OF THE SOUTHEAST ONE-QUARTER (SE1/4) OF SECTION 21 AND A PORTION OF THE NORTHEAST ONE-QUARTER (NE1/4) OF SECTION 28, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M.L. EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: THE WEST LINE OF THE SOUTHEAST ONE-QUARTER (SE1/4) OF SECTION 21, TOWNSHIP 12 SOUTH, RANGE 65 WEST IS ASSUMED TO BEAR N00°25'32"W, A DISTANCE OF 2638.53 FEET.

COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST ONE-QUARTER (SW1/4), SAID POINT ALSO BEING THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED:

THENCE N00°25'32"W ALONG THE WEST LINE OF SAID SOUTHEAST ONE-QUARTER (SE1/4), A DISTANCE OF 650.11 FEET.

THENCE N89°40'51"E, A DISTANCE OF 2077.12 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF VOLLMER ROAD AS DESCRIBED IN THE DOCUMENT RECORDED IN BOOK 2678 AT PAGE 430 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER.

THENCE S21°41'10"W ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 2013.88 FEET TO A POINT ON THE EAST LINE OF THE NORTHWEST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (NW1/4 NE1/4) OF SAID SECTION 28.

THENCE N00°41'13"W ALONG SAID EAST LINE, A DISTANCE OF 1212.12 FEET TO THE SOUTHWEST CORNER OF THE SOUTHWEST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER (SW1/4 SE1/4) OF SAID SECTION 21.

THENCE S89°40'14"W ALONG THE SOUTH LINE OF SAID SOUTHWEST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER (SW1/4 SE1/4), A DISTANCE OF 1343.49 FEET TO THE POINT OF BEGINNING.

SAID PARCEL OF LAND CONTAINS A CALCULATED AREA OF 38.01 ACRES OF LAND, MORE OR LESS.

Attachment to Order - 2011-0002



## EXHIBIT C

### LEGAL DESCRIPTION TRAILS AT TIMBERLINE WEST PARCEL 2:

A PARCEL OF LAND LOCATED IN A PORTION OF THE SOUTHEAST ONE-QUARTER (SE1/4) OF SECTION 21, TOWNSHIP 12 SOUTH, RANGE 68 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS, THE WEST LINE OF THE SOUTHEAST ONE-QUARTER (SE1/4) OF SECTION 21, TOWNSHIP 12 SOUTH, RANGE 68 WEST IS ASSUMED TO BEAR N00°25'32"W, A DISTANCE OF 3638.53 FEET;

COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHEAST ONE-QUARTER (SE1/4);

THENCE N00°25'32"W ALONG THE WEST LINE OF SAID SOUTHEAST ONE-QUARTER (SE1/4), A DISTANCE OF 650.13 FEET TO THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED;

THENCE N00°25'32"W CONTINUING ALONG SAID WEST LINE, A DISTANCE OF 706.70 FEET;

THENCE N89°40'31"E, A DISTANCE OF 2364.04 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF VOLLMER ROAD AS DESCRIBED IN THE DOCUMENT RECORDED IN BOOK 2678 AT PAGE 430 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER;

THENCE S21°41'10"W ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 762.36 FEET;

THENCE S89°40'31"W, A DISTANCE OF 2077.32 FEET TO THE POINT OF BEGINNING.

SAID PARCEL OF LAND CONTAINS A CALCULATED AREA OF 38.03 ACRES OF LAND, MORE OR LESS.

Attachment to Order - 2017-CM-0002

## EXHIBIT D

### LEGAL DESCRIPTION TRAILS AT TIMBERLINE WEST PARCEL 3:

A PARCEL OF LAND LOCATED IN A PORTION OF THE SOUTHEAST ONE-QUARTER (SE1/4) OF SECTION 21, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: THE WEST LINE OF THE SOUTHEAST ONE-QUARTER (SE1/4) OF SECTION 21, TOWNSHIP 12 SOUTH, RANGE 65 WEST IS ASSUMED TO BEAR N00°25'32"W, A DISTANCE OF 2658.53 FEET.

COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHEAST ONE-QUARTER (SE1/4);  
THENCE N00°25'32"W ALONG THE WEST LINE OF SAID SOUTHEAST ONE-QUARTER (SE1/4), A DISTANCE OF 1356.81 FEET TO THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED;  
THENCE N00°25'32"W CONTINUING ALONG SAID WEST LINE, A DISTANCE OF 656.30 FEET;  
THENCE N88°40'31"E, A DISTANCE OF 2590.16 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF VOLLMER ROAD AS DESCRIBED IN THE DOCUMENT RECORDED IN BOOK 2678 AT PAGE 430 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER;

THENCE ALONG SAID WESTERLY RIGHT-OF-WAY LINE THE FOLLOWING TWO (2) COURSES:

1. S00°37'14"E, A DISTANCE OF 95.54 FEET;
2. S21°W10'W, A DISTANCE OF 891.81 FEET;

THENCE S88°40'31"W, A DISTANCE OF 2364.04 FEET TO THE POINT OF BEGINNING.

SAID PARCEL OF LAND CONTAINS A CALCULATED AREA OF 37.58 ACRES OF LAND, MORE OR LESS.

Attachment to Order - 2017CW3002

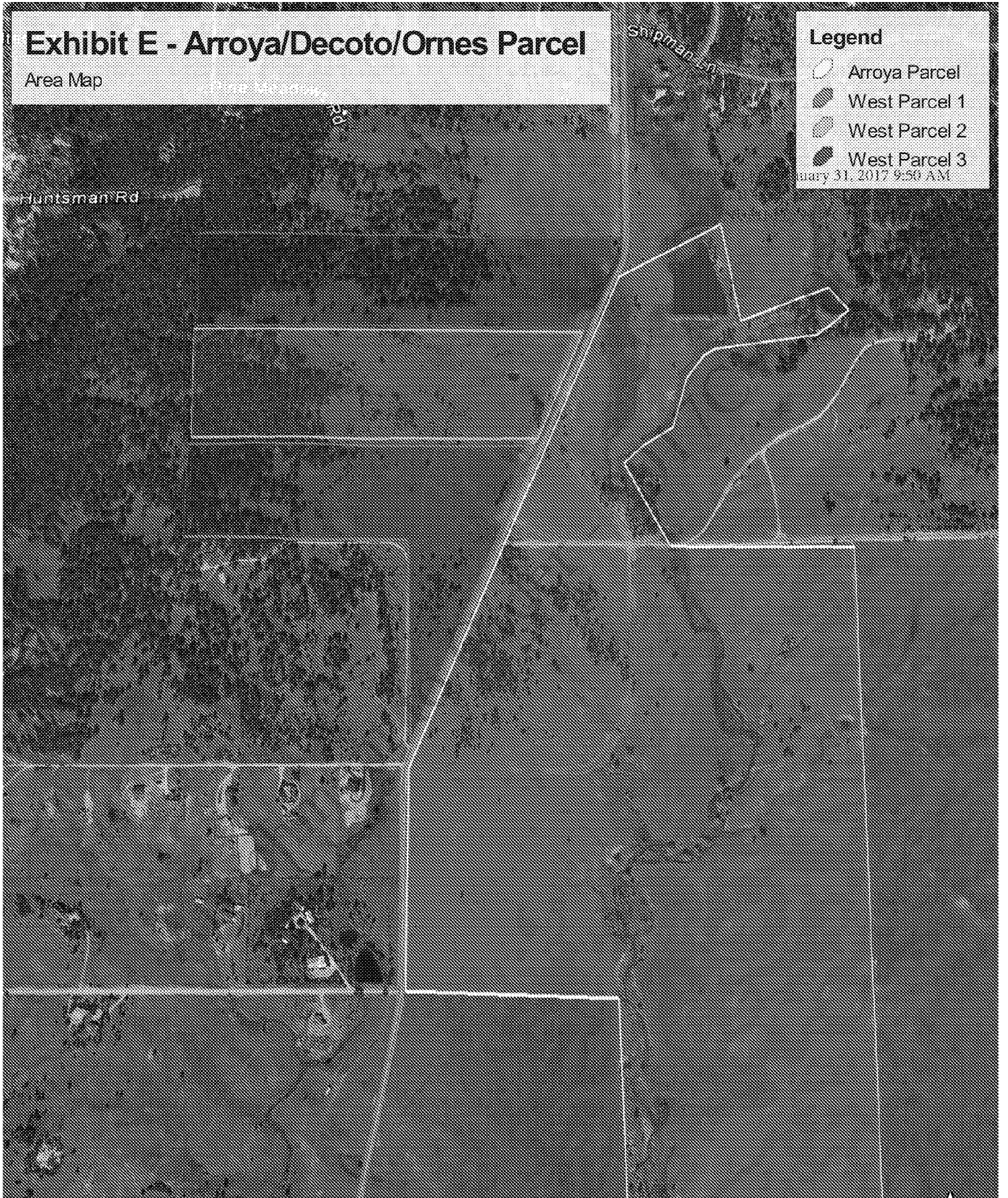
# Exhibit E - Arroya/Decoto/Ornes Parcel

Area Map

## Legend

- Arroya Parcel
- ▨ West Parcel 1
- ▩ West Parcel 2
- ▧ West Parcel 3

January 31, 2017 9:50 AM



DISTRICT COURT, WATER DIVISION NO. 2, STATE OF COLORADO OCT 29 1986

Case No. 86-CW-18

*Roseanna S. Lyons*

FINDINGS OF FACT, CONCLUSIONS OF LAW, JUDGMENT AND DECREE Clerk

CONCERNING THE APPLICATION FOR NONTRIBUTARY GROUND WATER RIGHTS OF THE FIRST INTERSTATE BANK OF DENVER N.A., CARLA W. LEWIS, AND SAMUEL S. SHERMAN AS COTRUSTEES UNDER THE LIFE INSURANCE TRUST OF THOMAS M. DINES FROM THE ARAPAHOE FORMATION, EL PASO COUNTY.

THIS MATTER, having come on ~~for hearing before the~~ Court this 29 day of Oct., 1986 upon the application of The First Interstate Bank of Denver N.A., Carla W. Lewis, and Samuel S. Sherman as Cotrustees under the Life Insurance Trust of Thomas M. Dines ("Applicants") and the Court having considered the pleadings filed and the evidence presented, and being fully advised in the premises, hereby enters the following Findings of Fact, Conclusions of Law, and Judgment and Decree: *get*

#### FINDINGS OF FACT

1. The Applicants are The First Interstate Bank of Denver N.A., Carla W. Lewis, and Samuel S. Sherman as Cotrustees under the Life Insurance Trust of Thomas M. Dines whose address is First Interstate Bank of Denver, 633 Seventeenth Street, Denver, Colorado 80202, Attn: Jack Alexander. Applicants filed the application in this case styled Application For Nontributary Ground Water From The Arapahoe Formation (the "Application") on March 28, 1986, seeking an adjudication of nontributary ground water rights from the Arapahoe Formation underlying lands owned by Applicants in El Paso County.

2. 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 all parties affected hereby, whether they have appeared or not. None of the lands or water rights involved in this case are within the boundaries of a designated groundwater basin.

3. A timely statement of opposition was filed by JVRC, Inc. No other statements of opposition were filed within the time provided by law nor did any other parties enter their appearance or intervene in these proceedings.

4. The Water Referee by Order dated July <sup>9</sup> 19, 1986, under Section 37-92-303(2), C.R.S., rereferred the Application to the Water Judge for all further proceedings. 225

5. The State Engineer issued a Determination of Facts on the Application, dated July 28, 1986, which has been filed with the Court. The Division Engineer adopted the Determination of Facts as his recommendations on August 8, 1986. The Determination of Facts and the findings contained therein have been reviewed and considered by this Court in accordance with Section 37-92-305(6), C.R.S.

6. Applicants seek an adjudication of rights to nontributary ground water from the Arapahoe Formation beneath 1,410 acres of land in El Paso County which are described in Exhibit A and depicted on the map attached as Exhibit B, both of which are incorporated herein by this reference (the "Subject Lands"). Applicants are the owners of the Subject Lands and have the right to withdraw and use the waters from the Arapahoe Formation underlying those lands. The waters claimed herein may be withdrawn through the proposed wells described in Paragraph 7 below and through such additional, replacement and supplemental wells as may be necessary to withdraw all of the water in the Arapahoe Formation underlying the Subject Lands without causing material injury to any vested water right whose source of supply is the Arkansas River and any of its tributaries or any other natural stream, or any ground water tributary thereto, and the Applicants have so proven.

7. Applicants will divert the waters claimed herein from the Arapahoe Formation through Dines Wells KA-1, KA-2, KA-3, and KA-4 more particularly described as follows:

Well Name: Dines Well KA-1

- (a) In the SE 1/4 of the NW 1/4 of Section 27, Township 12 South, Range 65 West of the 6th P.M., 2500 feet from the North Section line and 2200 feet from the West Section line, in El Paso County.
- (b) Depth: 1900 feet.
- (c) Source: Nontributary Arapahoe Formation.
- (d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.\*

Well Name: Dines Well KA-2

(a) Location: In the SW 1/4 of the SW 1/4 of Section 27, Township 12 South, Range 65 West of the 6th P.M., 200 feet from the South Section line and 200 feet from the West Section line, in El Paso County.

(b) Depth: 1800 feet.

(c) Source: Nontributary Arapahoe Formation.

(d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.\*

Well Name: Dines Well KA-3

(a) Location: In the NW 1/4 of the SE 1/4 of Section 33, Township 12 South, Range 65 West of the 6th P.M., 1500 feet from the South Section line and 2100 feet from the East Section line, in El Paso County.

(b) Depth: 1700 feet.

(c) Source: Nontributary Arapahoe Formation.

(d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.\*

Well Name: Dines Well KA-4

(a) Location: In the NE 1/4 of the SW 1/4 of Section 34, Township 12 South, Range 65 West of the 6th P.M., 1400 feet from the South Section line and 2100 feet from the West Section line, in El Paso County.

(b) Depth: 1700 feet.

(c) Source: Nontributary Arapahoe Formation.

(d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.

- \* Not to exceed in total the amount available to Applicants from the Arapahoe Formation pursuant to § 37-90-137(4), C.R.S. and the provisions of this decree.

8. Pursuant to §37-90-137(4), C.R.S., five hundred seventy-five (575) acre-feet of water per year are available to Applicants from the Arapahoe Formation underlying the Subject Lands. The average thickness of saturated sand of the Arapahoe Formation underlying the Subject Lands is 240 feet but the final determination on actual saturated sand thickness will be determined when the wells are drilled, and the amount decreed herein may be subsequently adjusted in accordance with that saturated sand thickness as provided in Paragraph 29 below. The specific yield of the Arapahoe Formation is 17% in and beneath the Subject Lands. This finding is specific to the property involved and does not indicate or in any way reflect upon proper values for the subject aquifer elsewhere. All the water in the Arapahoe Formation underlying the Subject Lands remains available for withdrawal by the wells decreed herein.

9. The State Engineer in his Determination of Facts found that 581 acre-feet per year were available for appropriation through the subject wells. The State Engineer's determination is based on a finding that only 1395 acres of the Subject Lands are available for appropriation, and based on saturated sand thicknesses of 245 feet and 250 feet for different parts of the Subject Lands and a specific yield of 17% for the Arapahoe Formation. The State Engineer also found that of the total 581 acre-feet per year of water available for appropriation, 569 acre-feet was nontributary and 12 acre-feet was not nontributary. The 12 acre-feet per year the State Engineer found as not nontributary underly 37 acres of Section 32 of the Subject Lands. Applicant has shown by a preponderance of the evidence that there are no existing wells with a right to water from the Arapahoe Formation underlying the Subject Lands and that the water underlying 1410 acres is available for appropriation by Applicants. The Court also finds that the withdrawals through Applicants' proposed wells of the water claimed herein including the amount of water underlying the 37 acres in Section 32 is nontributary. The proposed wells will not, at their location and withdrawing the amounts decreed herein, within one hundred years deplete the flow of any natural stream at a rate greater than one-tenth of one percent of the annual rate of withdrawal. Applicants' engineer ~~has testified~~ that 575 acre-feet per year is available for appropriation calculated with a saturated sand thickness of 240 feet for the

Arapahoe Formation. Subject to the final determination of saturated sand thickness based on the information derived from the drilling of the wells, Applicants will use 240 feet for the saturated sand thickness of the Arapahoe Formation beneath the Applicants' property.

10. The source of water for the proposed wells is nontributary as defined in Section 37-90-103 (10.5), C.R.S. The proposed withdrawals through Dines Wells KA-1, KA-2, KA-3, and KA-4 in the amount of 575 acre-feet per year, or in any lesser or greater amount determined under Paragraph 29, will not, within one hundred years, deplete the flow of any natural stream or its alluvium or any ground water tributary thereto at an annual rate greater than one-tenth of 1% of the annual rate of withdrawal.

11. The waters of the Arapahoe Formation that are the subject of the appropriation claimed herein will be, and Applicants intend that they be used, and Applicants shall have the right of succession of uses, for municipal, domestic, commercial, fire protection, industrial, residential, recreation, irrigation, exchange, replacement of depletions, augmentation, livestock and agricultural uses. The water will be produced for immediate application to beneficial use and for storage and subsequent application to beneficial use. Subject only to the provisions of Paragraph 31, Applicants shall have the right to make any reuse, successive use or disposition of the developed water claimed herein until totally consumed free of any limitations, restrictions, or requirements as to the place of use, amount of discharge or location of discharge after such reuse, successive use or disposition in accord with Section 37-82-106, C.R.S.

12. All of the requirements of C.R.S. § 37-90-137(4), in effect on this date have been complied with, and the issuance of permits for the subject wells is justified and those permits will be issued as described in Paragraph 34 below.

13. Applicants will relinquish the right to consume after use, reuse, and successive use 2% of the amount of ground water withdrawn through Dines Wells KA-1, KA-2, KA-3 and KA-4 and any additional, supplemental, or replacement, wells without regard to dominion or control of the ground water so relinquished.

14. Applicants seek a decree designating all of the wells described in Paragraph 7 above as original and alternate points of diversion for each other permitting the withdrawal of up to the full cumulative amount by flow rate and volume of water which may be lawfully withdrawn from any one or more of those wells. The Court finds that no material injury will result to the owners or persons entitled to use water under any vested



water right or decreed conditional water right by the granting of this request, and it is hereby granted.

15. Applicants may withdraw more water than the amounts set forth in Paragraph 8 so long as the sum of the withdrawals from all wells decreed herein (as that sum may subsequently be adjusted pursuant to Paragraph 29 hereof) does not exceed the product of the number of years since the date of this decree, times the annual rate of one percent (1%) of the total amount of unappropriated water recoverable from the Arapahoe Formation.

16. Applicants have requested that the Court determine that Applicants have the right to withdraw all of the unappropriated water from the Arapahoe Formation lying below their land and to increase their annual appropriations based upon the local aquifer characteristics established through information obtained from the drilling of the wells upon notice to all parties and approval by the Court, without amending the Application or republishing. The Court finds that there has been full and adequate notice of these claims and Applicants will be entitled to an adjustment under the provisions of Paragraph 29 below on the amount of water to which the wells are entitled.

17. Applicants may construct any well within 200 feet of the described locations without amending the Application or reopening this decree.

18. With respect to the permits to be issued by the State Engineer's office for construction of the wells described in Paragraph 7 herein, the provisions of Paragraph 34 below are and have been justified and shall apply.

19. As of March 3, 1986, Applicants have intended to claim the waters sought in the Application and have so demonstrated by open and physical acts on the ground and by the completion of an engineering study and hydrogeological investigation on the water available for appropriation in the Arapahoe Formation. Applicants have demonstrated and manifested an intent to appropriate the waters claimed herein by giving sufficient notice thereof, all in accordance with law. The evidence presented shows that the Applicants intend to appropriate the waters claimed herein, that such intent to appropriate has been adequately demonstrated, and that Applicants are entitled to a decree for the water rights herein decreed.

20. There is unappropriated water available for withdrawal by the structures decreed herein and the vested water rights of others will not be materially injured by the appropriations as decreed. Only that quantity of water underlying the Subject Lands has been considered to be

unappropriated; the minimum useful life of the Arapahoe Formation is at least one hundred (100) years, assuming no substantial artificial recharge within one hundred (100) years; and no material injury to vested water rights will result from the issuance of or exercise of the permits for the subject wells.

#### CONCLUSIONS OF LAW

21. The Court has jurisdiction to determine Applicants' rights to nontributary ground water pursuant to Sections 37-90-137(6), 37-92-203(1), and 37-92-302 through 305, C.R.S. (Supp. 1985). The procedures and requirements of these statutes have been complied with, full and adequate notice has been given, and no additional notice is required.

22. The Court concludes as a matter of law that the Application herein is one contemplated by law. The Application for a decree confirming Applicants' right to divert and use ground water from the Arapahoe Formation beneath the Subject Lands, pursuant to C.R.S. § 37-90-137(4), should be granted, subject to the provisions of this decree. The rights confirmed by this decree are vested property rights. The amount of water confirmed in this decree is that quantity of water underlying the Subject Lands and the annual withdrawals are based on an aquifer life of one hundred years.

23. The Court concludes that the rights to ground water determined herein are not conditional water rights and subsequent showings or findings of reasonable diligence under Section 37-92-301(4), C.R.S., are inapplicable and need not be made. Accordingly, each of the water rights adjudicated herein is a final vested property right.

24. Applicants are entitled as a matter of law to use, reuse, and successively use to extinction and dispose of all nontributary ground water decreed herein pursuant to Section 37-82-106, C.R.S. (Supp. 1985) subject only to a 2% relinquishment of Applicants' right to total consumption. Failure to use, reuse or recapture such water, including return flows, shall not be deemed a forfeiture or abandonment of the right to such use, reuse or recapture.

25. The Court shall retain jurisdiction over this matter to make adjustments to the amount of water available for withdrawal annually to conform to the actual aquifer characteristics encountered upon the drilling of the wells. This retained jurisdiction may be invoked only by the parties under Paragraph 36.

## JUDGMENT AND DECREE

26. The Findings of Fact and Conclusions of Law set forth in Paragraphs 1-25, above are incorporated herein by this reference.

27. The Application for determination of water rights for the subject wells is granted subject to the following limitations.

28. A right to five hundred seventy-five (575) acre-feet of nontributary ground water per year is decreed and confirmed in Applicants pursuant to § 37-90-137(4), C.R.S., for Dines Wells KA-1, KA-2, KA-3, and KA-4, from the Arapahoe Formation for municipal, domestic, commercial, fire protection, industrial, residential, recreation, irrigation, exchange, replacement of depletions, augmentation, livestock and agricultural uses. Applicants shall have the right to recapture, reuse, and dispose of the water developed by the subject wells. Applicants shall have the right to withdraw water for immediate application to beneficial use and for storage and subsequent application to beneficial use and shall have the right to make any reuse, successive use or disposition of the developed water claimed herein to extinction free of any limitations, restrictions, or requirements as to the place of use, amount of discharge or location of discharge after such reuse, successive use or disposition in accord with Section 37-82-106, C.R.S. subject only to the provisions of Paragraph 31 below. The water may be withdrawn through the wells described in Paragraph 7 above and through such additional wells as may be required in order to maintain the annual appropriation as determined herein. The proposed withdrawals through Dines Wells KA-1, KA-2, KA-3, and KA-4 and any additional, supplemental, or replacement wells in the amount of 575 acre-feet per year, or in any additional amounts of water from the Arapahoe Formation underlying the Subject Lands, will not, within one hundred years, deplete the flow of any natural stream or its alluvium or any ground water tributary thereto at an annual rate greater than one-tenth of 1% of the annual rate of withdrawal, and those waters are nontributary to any natural surface stream, its alluvium, and any ground water tributary thereto, and the proposed withdrawals will not result in material injury to vested water rights.

29. The total amount of water to which Applicants are entitled and which is available to Applicants from the Arapahoe Formation beneath the Subject Lands shall be 575 acre-feet per year or the lesser or greater amount of water each such well is entitled to as subsequently determined from the saturated sand thickness of the Arapahoe Formation determined from the geophysical data obtained from the construction of the wells. Geophysical logs shall be taken in accordance with the applicable

rules promulgated by the State Engineer. In making the determination of the final amount of water to which the subject wells are entitled, the following criteria shall apply:

(a) Saturated sand thickness shall be defined as the cumulative thickness of saturated materials as shown on the geophysical logs for each well applying standard accepted geophysical log interpretation methodology;

(b) The specific yield for the Arapahoe Formation shall be 17%;

(c) The water in the Arapahoe Formation underlying the 1410 acres of the Subject Lands shall be considered available for appropriation by the wells decreed herein.

After the completion of the wells subject to this decree, Applicants shall submit the geophysical logs and any other geophysical information obtained from the drilling of the wells to the State Engineer and to the other parties in this action together with a statement from Applicants on the final actual saturated sand thickness and final annual appropriation for each well as determined by Applicants. Within 60 days from the date on which Applicants mail copies of the geophysical logs and statement to the parties herein, any party may petition this Court to invoke the Court's retained jurisdiction under Paragraph 36 of this decree to reconsider the saturated sand thickness of the Arapahoe Formation underlying the Subject Lands for the purpose of adjusting the total entitlement of water to the wells decreed herein. Those proceedings shall be limited exclusively to the issue of saturated sand thickness. If the Court's retained jurisdiction is not invoked within the time prescribed in this Paragraph, the respective amounts set forth in Applicants' statement as the final annual entitlement to each well shall be final, which amount shall be confirmed as final by order of the Court upon Applicants' motion to the Court setting forth facts showing compliance with this Paragraph.

30. The issuance by the Colorado Division of Water Resources pursuant to Colorado Revised Statutes, Section 37-90-137(4) of permits to construct the subject wells is justified and the Division of Water Resources is directed to issue the permits in accordance with Paragraph 34 below. Each of the requirements of the statute has been complied with. Unappropriated waters are available for appropriation from the Arapahoe Formation beneath the Subject Lands and the proposed withdrawals will not result in material injury to other vested water rights.

31. Applicants shall relinquish the right to consume, after use, reuse, and successive use 2% of the water withdrawn through Dines Wells KA-1, KA-2, KA-3 and KA-4 and any additional, supplemental, or replacement wells without regard to dominion or control of the ground water so relinquished.

32. All of the wells described in Paragraph 7 may be used as original and alternate points of diversion for each other permitting the withdrawal by flow rate and volume of up to the full cumulative amount of water which may be lawfully withdrawn from all of those wells from any one or more of those wells. The Court finds that no material injury will result to the owners or persons entitled to use water under any vested water right or decreed conditional water right by the granting of this request, and it is hereby granted.

33. Applicants may withdraw more water than the final annual appropriation for each well so long as the sum of the withdrawals from all wells decreed herein (as that sum may subsequently be adjusted pursuant to Paragraph 29 hereof) does not exceed the product of the number of years since the date of issuance of this decree, times the annual rate of one percent (1%) of the total amount of unappropriated water recoverable from the Arapahoe Formation.

34. With respect to the permits to be issued by the State Engineer's office for construction of the wells described in Paragraph 7 herein, the following provisions shall apply.

(a) The State Engineer shall consider the rights granted herein as valid and shall consider the water sought by Applicants as taken and appropriated by Applicants.

(b) When Applicants are prepared to drill a well described in this decree, Applicants shall apply to the State Engineer for a well permit and that permit shall be issued within 60 days under terms and conditions no less stringent than those set forth in this decree with the conditions for equipping and constructing the well as are specified in Paragraph 35 herein. In the event that a well permit expires prior to the construction of the well and the application of water to beneficial use, Applicants may apply for a new well permit and the State Engineer shall within 60 days issue a new well permit with the same terms and conditions as the permit that expired.

(c) Applicants shall submit well permit applications to the State Engineer's office for any replacement, supplemental or additional wells.

(d) Any well permitted pursuant to this decree which is drilled within 200 feet of the decreed location shall be deemed to have been drilled at the decreed well location and shall not require application for a new or amended well permit.

(e) In determining whether good cause exists for granting a request by Applicants to extend well permits for nontributary wells for one or more additional one-year periods pursuant to Section 37-90-137(3)(a)(II), C.R.S. (1985 Supp.), the State Engineer shall recognize that each well decreed herein, and such additional wells as are required from time to time to fully recover the annual appropriation herein, are part of a single integrated water supply system to be constructed over a phased period of time. So long as Applicants still desire to use the groundwater the well permits shall be extended.

(f) Prior to constructing any additional wells, Applicants shall submit well permit applications to the State Engineer. In considering such permit applications, the State Engineer shall be governed by Section 37-90-137(10), C.R.S. (1985 Supp.) and the provisions of this decree. Any such permitting action may be reviewed by this Court pursuant to Section 37-92-305(6), C.R.S. (1985 Supp.).

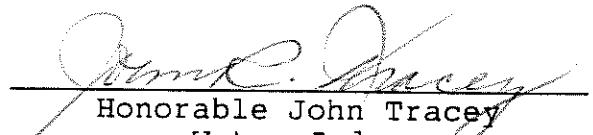
(g) For the purpose of well permit applications, Applicants need not submit separate proof, apart from the terms of this decree, of matters which have been determined herein.

35. Applicants shall geophysically log the entire bore hole of each well prior to the installation of casing. Such logs shall be taken in accordance with the applicable rules promulgated by the State Engineer. In constructing and maintaining any well which will withdraw water from the Arapahoe Formation under this decree, the Applicants shall seal off and encase the well with an impervious lining at all levels, except the level of the Arapahoe Formation, to prevent withdrawal of and mixing of groundwater in other aquifers and a totalizing flow meter shall be installed on each well. After construction the Applicants shall attach an identification tag to the well specifying the name of the well, the permit number and the aquifer from which the water is withdrawn. Applicants shall maintain records of the amounts pumped from each well on a monthly basis and such records shall be provided to the Division Engineer or the State Engineer on request.

36. This Court retains jurisdiction in this case for the reconsideration of the final amounts of water appropriated by the proposed wells in accord with Paragraph 29 above. The Court's retained jurisdiction may be invoked only by the Applicants and JVRC, Inc. The Court's retained jurisdiction may be invoked by written notice to the Court requesting a hearing. Copies of that notice will be served on the parties herein at their latest address of record in this case.

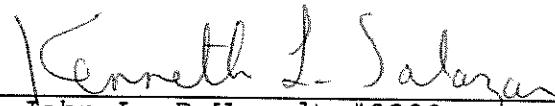
Dated this 29 day of Oct., 1986.

BY THE COURT

  
Honorable John Tracey  
Water Judge  
Water Division No. 2  
State of Colorado

APPROVED AS TO FORM AND SUBSTANCE:


SHERMAN & HOWARD

By:   
John L. DeWeerd #9390  
Kenneth L. Salazar #11648  
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Attorneys for Applicants,  
The First Interstate Bank of  
Denver N.A., Carla W. Lewis,  
and Samuel S. Sherman as  
Cotrustees under the Life  
Insurance Trust of Thomas M.  
Dines.

c: Sherman and Howard (Salazar)  
Vranesh & Raisch (Shimmin)  
Division Engineer  
State Engineer

VRANESH & RAISCH

By:   
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Post Office Box 871  
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Attorneys for Objector  
JVRC, Inc.

Filed in the office of the  
Clerk, District Court Water  
Division No. 2, State of  
Colorado

OCT 29 1986

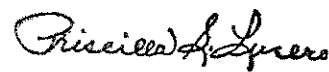
  
Clerk

EXHIBIT A

The Subject Lands consist of the following:

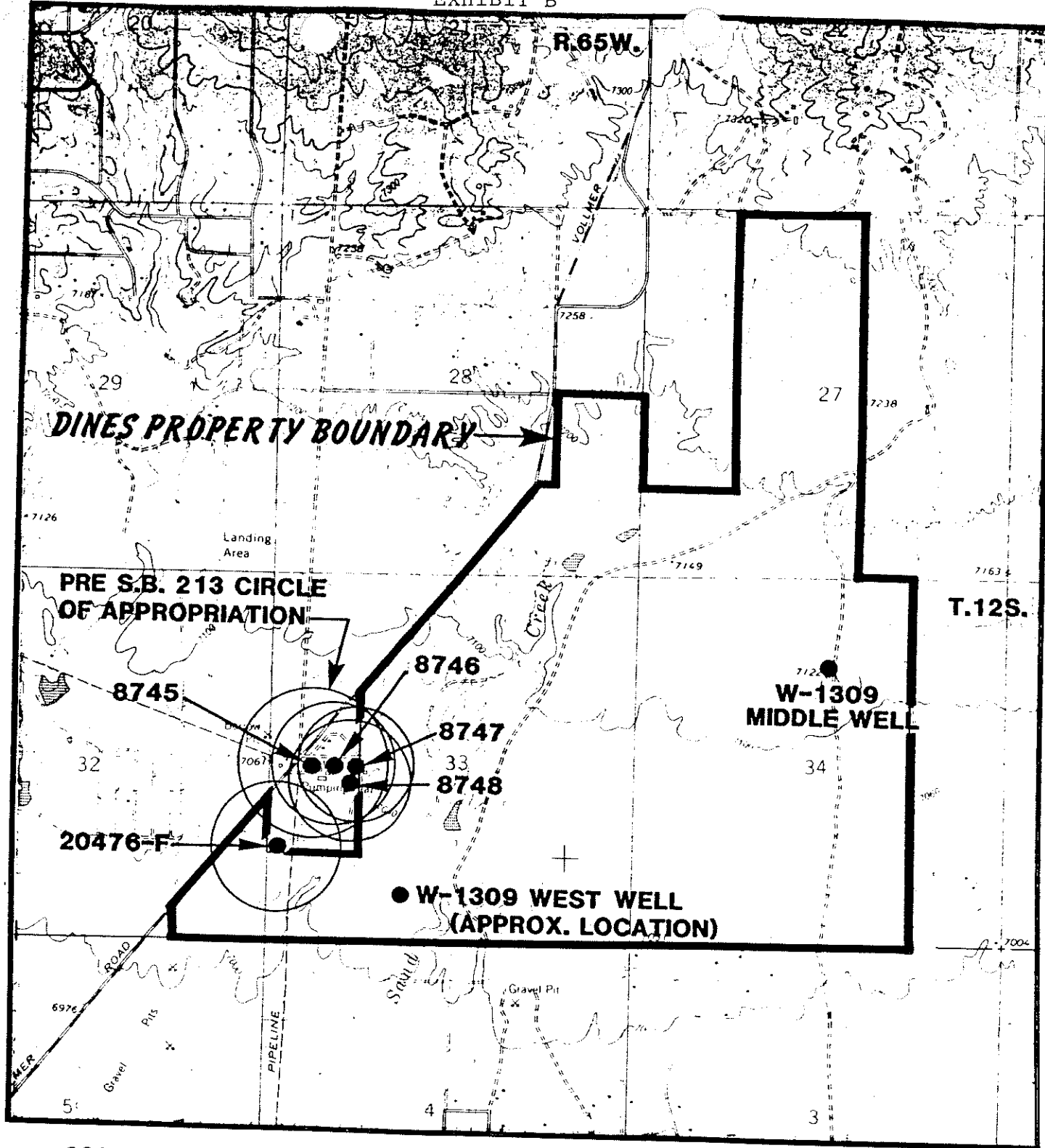
The W1/2 W1/2 E1/2 and the E1/2 W1/2 and the SW1/4 SW1/4 of Section 27; the E1/2 SE1/4 and that portion of the SW1/4 SE1/4 lying South and East of the County Road across said premises, both in Section 28; that portion of the SE1/4 SE1/4 of Section 32 lying South and East of said County Road, and that portion of the NE1/4 SE1/4 of said Section 32, lying South and East of said County Road; the E1/2 and the E1/2 SW1/4 and the SW1/4 SW1/4 of Section 33, and all that part of the NW1/4 of said Section 33 lying South and East of the said County Road across said premises, except that portion of the SW1/4 NW1/4 of said Section 33 lying South and East of said County Road containing approximately 10 acres deeded to Colorado Interstate Gas Company by Warranty Deed recorded in Book 1173 at Page 359 of the El Paso County Records; and the W1/2 E1/2 and the W1/2 of Section 34, all in Township 12 South, Range 65 West of the 6th P.M., located in El Paso County, Colorado.

Filed in the office of the  
Clerk, District Court Water  
Division No. 2, State of  
Colorado

OCT 29 1986

*Rosemary A. Lyons*  
Clerk





SCALE 1:24000

# LOCATION MAP

FIGURE 1

Filed in the office of the  
Clerk, District Court Water  
Division No. 2, State of  
Colorado

OCT 29 1986

*Priscilla S. Lyners*  
Clerk

DISTRICT COURT, WATER DIVISION NO. 2, STATE OF COLORADO OCT 29 1986

Case No. 86-CW-19

*Riseiell Sherman*

FINDINGS OF FACT, CONCLUSIONS OF LAW, JUDGMENT AND DECREE

Clerk

CONCERNING THE APPLICATION FOR NONTRIBUTARY GROUND WATER RIGHTS OF THE FIRST INTERSTATE BANK OF DENVER N.A., CARLA W. LEWIS, AND SAMUEL S. SHERMAN AS COTRUSTEES UNDER THE LIFE INSURANCE TRUST OF THOMAS M. DINES FROM THE LARAMIE-FOX HILLS AQUIFER, EL PASO COUNTY.

THIS MATTER, having come on ~~for hearing before the~~ <sup>yet</sup> Court this 29 day of Oct., 1986 upon the application of The First Interstate Bank of Denver N.A., Carla W. Lewis, and Samuel S. Sherman as Cotrustees under the Life Insurance Trust of Thomas M. Dines ("Applicants") and the Court having considered the pleadings filed and the evidence presented, and being fully advised in the premises, hereby enters the following Findings of Fact, Conclusions of Law, and Judgment and Decree:

FINDINGS OF FACT

1. The Applicants are The First Interstate Bank of Denver N.A., Carla W. Lewis, and Samuel S. Sherman as Cotrustees under the Life Insurance Trust of Thomas M. Dines whose address is First Interstate Bank of Denver, 633 Seventeenth Street, Denver, Colorado 80202, Attn: Jack Alexander. Applicants filed the application in this case styled Application For Nontributary Ground Water From The Laramie-Fox Hills Aquifer (the "Application") on March 28, 1986, seeking an adjudication of nontributary ground water rights from the Laramie-Fox Hills Aquifer underlying lands owned by Applicants in El Paso County.

2. 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 all parties affected hereby, whether they have appeared or not. None of the lands or water rights involved in this case are within the boundaries of a designated groundwater basin.

3. A timely statement of opposition was filed by JVRC, Inc. No other statements of opposition were filed within the time provided by law nor did any other parties enter their appearance or intervene in these proceedings.

4. The Water Referee by Order dated July 19<sup>9</sup>, 1986, under Section 37-92-303(2), C.R.S., rereferred the Application to the Water Judge for all further proceedings.

5. The State Engineer issued a Determination of Facts on the Application, dated July 28, 1986, which has been filed with the Court. The Division Engineer adopted the Determination of Facts as his recommendations on August 8, 1986. The Determination of Facts and the findings contained therein have been reviewed and considered by this Court in accordance with Section 37-92-305(6), C.R.S.

6. Applicants seek an adjudication of rights to nontributary ground water from the Laramie-Fox Hills Aquifer beneath 1,410 acres of land in El Paso County which are described in Exhibit A and depicted on the map attached as Exhibit B, both of which are incorporated herein by this reference (the "Subject Lands"). Applicants are the owners of the Subject Lands and have the right to withdraw and use the waters from the Laramie-Fox Hills Aquifer underlying those lands. The waters claimed herein may be withdrawn through the proposed wells described in Paragraph 7 below and through such additional, replacement and supplemental wells as may be necessary to withdraw all of the water in the Laramie-Fox Hills Aquifer underlying the Subject Lands without causing material injury to any vested water right whose source of supply is the Arkansas River and any of its tributaries or any other natural stream, or any ground water tributary thereto, and the Applicants have so proven.

7. Applicants will divert the waters claimed herein from the Laramie-Fox Hills Aquifer through Dines Wells KLF-1, KLF-2, KLF-3, and KLF-4 more particularly described as follows:

Well Name: Dines Well KLF-1

- (a) In the SE 1/4 of the NW 1/4 of Section 27, Township 12 South, Range 65 West of the 6th P.M., 2500 feet from the North Section line and 2300 feet from the West Section line, in El Paso County.
- (b) Depth: 2350 feet.
- (c) Source: Nontributary Laramie-Fox Hills Aquifer.
- (d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.\*

Well Name: Dines Well KLF-2

(a) Location: In the SW 1/4 of the SW 1/4 of Section 27, Township 12 South, Range 65 West of the 6th P.M., 100 feet from the South Section line and 100 feet from the West Section line, in El Paso County.

(b) Depth: 2250 feet.

(c) Source: Nontributary Laramie-Fox Hills Aquifer.

(d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.\*

Well Name: Dines Well KLF-3

(a) Location: In the NW 1/4 of the SE 1/4 of Section 33, Township 12 South, Range 65 West of the 6th P.M., 1400 feet from the South Section line and 2200 feet from the East Section line, in El Paso County.

(b) Depth: 2150 feet.

(c) Source: Nontributary Laramie-Fox Hills Aquifer.

(d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.\*

Well Name: Dines Well KLF-4

(a) Location: In the NE 1/4 of the SW 1/4 of Section 34, Township 12 South, Range 65 West of the 6th P.M., 1400 feet from the South Section line and 2200 feet from the West Section line, in El Paso County.

(b) Depth: 2150 feet.

(c) Source: Nontributary Laramie-Fox Hills Aquifer.

(d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.

- \* Not to exceed in total the amount available to Applicants from the Laramie-Fox Aquifer pursuant to § 37-90-137(4), C.R.S. and the provisions of this decree.

8. Pursuant to §37-90-137(4), C.R.S., five hundred thirty-nine (539) acre-feet of water per year are available to Applicants from the Laramie-Fox Hills Aquifer underlying the Subject Lands. The average thickness of saturated sand of the Laramie-Fox Hills Aquifer underlying the Subject Lands is 255 feet but the final determination on actual saturated sand thickness will be determined when the wells are drilled, and the amount decreed herein may be subsequently adjusted in accordance with that saturated sand thickness as provided in Paragraph 29 below. The specific yield of the Laramie-Fox Hills Aquifer is 15% in and beneath the Subject Lands. This finding is specific to the property involved and does not indicate or in any way reflect upon proper values for the subject aquifer elsewhere. All the water in the Laramie-Fox Hills Aquifer underlying the Subject Lands remains available for withdrawal by the wells decreed herein.

9. The State Engineer in his Determination of Facts found that 423 acre-feet per year were available for appropriation through the subject wells based on a specific yield of 15% and a saturated sand thickness of 200 feet for the Laramie-Fox Hill Aquifer beneath the Subject Lands. Applicants' ~~engineers~~ <sup>has testified</sup> that 539 acre-feet per year is available for appropriation calculated with a saturated sand thickness of 255 feet for the Laramie-Fox Hills Aquifer derived from a review of wells in the vicinity of the Subject Lands. Subject to the final determination of saturated sand thickness based on the information derived from the drilling of the wells, Applicants have shown by a preponderance of the evidence that the saturated sand thickness for the Laramie-Fox Hills Aquifer is 255 feet beneath the Applicants' property.

10. The source of water for the proposed wells is nontributary as defined in Section 37-90-103 (10.5), C.R.S. The proposed withdrawals through Dines Wells KLF-1, KLF-2, KLF-3, and KLF-4 in the amount of 539 acre-feet per year, or in any lesser or greater amount determined under Paragraph 29, will not, within one hundred years, deplete the flow of any natural stream or its alluvium or any ground water tributary thereto at an annual rate greater than one-tenth of 1% of the annual rate of withdrawal.

11. The waters of the Laramie-Fox Hills Aquifer that are the subject of the appropriation claimed herein will be, and Applicants intend that they be used, and Applicants shall have the right of succession of uses, for municipal, domestic, commercial, fire protection, industrial, residential, recreation, irrigation, exchange, replacement of depletions, augmentation, livestock and agricultural uses. The water will be produced for immediate application to beneficial use and for storage and subsequent application to beneficial use. Subject only to the provisions of Paragraph 31, Applicants shall have the right to make any reuse, successive use or disposition of the developed water claimed herein until totally consumed free of any limitations, restrictions, or requirements as to the place of use, amount of discharge or location of discharge after such reuse, successive use or disposition in accord with Section 37-82-106, C.R.S.

12. All of the requirements of C.R.S. § 37-90-137(4), in effect on this date have been complied with, and the issuance of permits for the subject wells is justified and those permits will be issued as described in Paragraph 34 below.

13. Applicants will relinquish the right to consume after use, reuse, and successive use 2% of the amount of ground water withdrawn through Dines Wells KLF-1, KLF-2, KLF-3 and KLF-4 and any additional, supplemental, or replacement, wells without regard to dominion or control of the ground water so relinquished.

14. Applicants seek a decree designating all of the wells described in Paragraph 7 above as original and alternate points of diversion for each other permitting the withdrawal of up to the full cumulative amount by flow rate and volume of water which may be lawfully withdrawn from any one or more of those wells. The Court finds that no material injury will result to the owners or persons entitled to use water under any vested water right or decreed conditional water right by the granting of this request, and it is hereby granted.

15. Applicants may withdraw more water than the amounts set forth in Paragraph 8 so long as the sum of the withdrawals from all wells decreed herein (as that sum may subsequently be adjusted pursuant to Paragraph 29 hereof) does not exceed the product of the number of years since the date of this decree, times the annual rate of one percent (1%) of the total amount of unappropriated water recoverable from the Laramie-Fox Hills Aquifer.

16. Applicants have requested that the Court determine that Applicants have the right to withdraw all of the unappropriated water from the Larimie-Fox Hills Aquifer lying

below their land and to increase their annual appropriations based upon the local aquifer characteristics established through information obtained from the drilling of the wells upon notice to all parties and approval by the Court, without amending the Application or republishing. The Court finds that there has been full and adequate notice of these claims and Applicants will be entitled to an adjustment under the provisions of Paragraph 29 below on the amount of water to which the wells are entitled.

17. Applicants may construct any well within 200 feet of the described locations without amending the Application or reopening this decree.

18. With respect to the permits to be issued by the State Engineer's office for construction of the wells described in Paragraph 7 herein, the provisions of Paragraph 34 below are and have been justified and shall apply.

19. As of March 3, 1986, Applicants have intended to claim the waters sought in the Application and have so demonstrated by open and physical acts on the ground and by the completion of an engineering study and hydrogeological investigation on the water available for appropriation in the Laramie-Fox Hills Aquifer. Applicants have demonstrated and manifested an intent to appropriate the waters claimed herein by giving sufficient notice thereof, all in accordance with law. The evidence presented shows that the Applicants intend to appropriate the waters claimed herein, that such intent to appropriate has been adequately demonstrated, and that Applicants are entitled to a decree for the water rights herein decreed.

20. There is unappropriated water available for withdrawal by the structures decreed herein and the vested water rights of others will not be materially injured by the appropriations as decreed. Only that quantity of water underlying the Subject Lands has been considered to be unappropriated; the minimum useful life of the Laramie-Fox Hills Aquifer is at least one hundred (100) years, assuming no substantial artificial recharge within one hundred (100) years; and no material injury to vested water rights will result from the issuance of or exercise of the permits for the subject wells.

#### CONCLUSIONS OF LAW

21. The Court has jurisdiction to determine Applicants' rights to nontributary ground water pursuant to Sections 37-90-137(6), 37-92-203(1), and 37-92-302 through 305, C.R.S. (Supp. 1985). The procedures and requirements of these statutes have been complied with, full and adequate notice has been given, and no additional notice is required.

22. The Court concludes as a matter of law that the Application herein is one contemplated by law. The Application for a decree confirming Applicants' right to divert and use ground water from the Laramie-Fox Hills Aquifer beneath the Subject Lands, pursuant to C.R.S. § 37-90-137(4), should be granted, subject to the provisions of this decree. The rights confirmed by this decree are vested property rights. The amount of water confirmed in this decree is that quantity of water underlying the Subject Lands and the annual withdrawals are based on an aquifer life of one hundred years.

23. The Court concludes that the rights to ground water determined herein are not conditional water rights and subsequent showings or findings of reasonable diligence under Section 37-92-301(4), C.R.S., are inapplicable and need not be made. Accordingly, each of the water rights adjudicated herein is a final vested property right.

24. Applicants are entitled as a matter of law to use, reuse, and successively use to extinction and dispose of all nontributary ground water decreed herein pursuant to Section 37-82-106, C.R.S. (Supp. 1985) subject only to a 2% relinquishment of Applicants' right to total consumption. Failure to use, reuse or recapture such water, including return flows, shall not be deemed a forfeiture or abandonment of the right to such use, reuse or recapture.

25. The Court shall retain jurisdiction over this matter to make adjustments to the amount of water available for withdrawal annually to conform to the actual aquifer characteristics encountered upon the drilling of the wells. This retained jurisdiction may be invoked only by the parties under Paragraph 36.

#### JUDGMENT AND DECREE

26. The Findings of Fact and Conclusions of Law set forth in Paragraphs 1-25, above are incorporated herein by this reference.

27. The Application for determination of water rights for the subject wells is granted subject to the following limitations.

28. A right to five hundred thirty-nine (539) acre-feet of nontributary ground water per year is decreed and confirmed in Applicants pursuant to § 37-90-137(4), C.R.S., for Dines Wells KLF-1, KLF-2, KLF-3, and KLF-4, from the Laramie-Fox Hills Aquifer for municipal, domestic, commercial, fire protection, industrial, residential, recreation, irrigation,



exchange, replacement of depletions, augmentation, livestock and agricultural uses. Applicants shall have the right to recapture, reuse, and dispose of the water developed by the subject wells. Applicants shall have the right to withdraw water for immediate application to beneficial use and for storage and subsequent application to beneficial use and shall have the right to make any reuse, successive use or disposition of the developed water claimed herein to extinction free of any limitations, restrictions, or requirements as to the place of use, amount of discharge or location of discharge after such reuse, successive use or disposition in accord with Section 37-82-106, C.R.S. subject only to the provisions of Paragraph 31 below. The water may be withdrawn through the wells described in Paragraph 7 above and through such additional wells as may be required in order to maintain the annual appropriation as determined herein. The proposed withdrawals through Dines Wells KLF-1, KLF-2, KLF-3, and KLF-4 and any additional, supplemental, or replacement wells in the amount of 539 acre-feet per year, or in any additional amounts of water from the Laramie-Fox Hills Aquifer underlying the Subject Lands, will not, within one hundred years, deplete the flow of any natural stream or its alluvium or any ground water tributary thereto at an annual rate greater than one-tenth of 1% of the annual rate of withdrawal, and is nontributary to any natural surface stream, its alluvium, and any ground water tributary thereto, and the proposed withdrawals will not result in material injury to vested water rights.

29. The total amount of water to which Applicants are entitled and which is available to Applicants from the Laramie-Fox Hills Aquifer beneath the Subject Lands shall be 539 acre-feet per year or the lesser or greater amount of water each such well is entitled to as subsequently determined from the saturated sand thickness of the Laramie-Fox Hills Aquifer determined from the geophysical data obtained from the construction of the wells. Geophysical logs shall be taken in accordance with the applicable rules promulgated by the State Engineer. In making the determination of the final amount of water to which the subject wells are entitled, the following criteria shall apply:

(a) Saturated sand thickness shall be defined as the cumulative thickness of saturated materials as shown on the geophysical logs for each well applying standard accepted geophysical log interpretation methodology;

(b) The specific yield for the Laramie-Fox Hills Aquifer shall be 15%;

(c) The water in the Laramie-Fox Hills Aquifer underlying the 1410 acres of the Subject Lands shall be considered available for appropriation by the wells decreed herein.

After the completion of the wells subject to this decree, Applicants shall submit the geophysical logs and any other geophysical information obtained from the drilling of the wells to the State Engineer and to the other parties in this action together with a statement from Applicants on the final actual saturated sand thickness and final annual appropriation for each well as determined by Applicants. Within 60 days from the date on which Applicants mail copies of the geophysical logs and statement to the parties herein, any party may petition this Court to invoke the Court's retained jurisdiction under Paragraph 36 of this decree to reconsider the saturated sand thickness of the Laramie-Fox Hills Aquifer underlying the Subject Lands for the purpose of adjusting the total entitlement of water to the wells decreed herein. Those proceedings shall be limited exclusively to the issue of saturated sand thickness. If the Court's retained jurisdiction is not invoked within the time prescribed in this Paragraph, the respective amounts set forth in Applicants' statement as the final annual entitlement to each well shall be final, which amount shall be confirmed as final by order of the Court upon Applicants' motion to the Court setting forth facts showing compliance with this Paragraph.

30. The issuance by the Colorado Division of Water Resources pursuant to Colorado Revised Statutes, Section 37-90-137(4) of permits to construct the subject wells is justified and the Division of Water Resources is directed to issue the permits in accordance with Paragraph 34 below. Each of the requirements of the statute has been complied with. Unappropriated waters are available for appropriation from the Laramie-Fox Hills Aquifer beneath the Subject Lands and the proposed withdrawals will not result in material injury to other vested water rights.

31. Applicants shall relinquish the right to consume, after use, reuse, and successive use 2% of the water withdrawn through Dines Wells KLF-1, KLF-2, KLF-3 and KLF-4 and any additional, supplemental, or replacement wells without regard to dominion or control of the ground water so relinquished.

32. All of the wells described in Paragraph 7 may be used as original and alternate points of diversion for each other permitting the withdrawal by flow rate and volume of up to the full cumulative amount of water which may be lawfully withdrawn from all of those wells from any one or more of those wells. The Court finds that no material injury will result to the owners or persons entitled to use water under any vested water right or

decreed conditional water right by the granting of this request, and it is hereby granted.

33. Applicants may withdraw more water than the final annual appropriation for each well so long as the sum of the withdrawals from all wells decreed herein (as that sum may subsequently be adjusted pursuant to Paragraph 29 hereof) does not exceed the product of the number of years since the date of issuance of this decree, times the annual rate of one percent (1%) of the total amount of unappropriated water recoverable from the Laramie-Fox Hills Aquifer.

34. With respect to the permits to be issued by the State Engineer's office for construction of the wells described in Paragraph 7 herein, the following provisions shall apply.

(a) The State Engineer shall consider the rights granted herein as valid and shall consider the water sought by Applicants as taken and appropriated by Applicants.

(b) When Applicants are prepared to drill a well described in this decree, Applicants shall apply to the State Engineer for a well permit and that permit shall be issued within 60 days under terms and conditions no less stringent than those set forth in this decree with the conditions for equipping and constructing the well as are specified in Paragraph 35 herein. In the event that a well permit expires prior to the construction of the well and the application of water to beneficial use, Applicants may apply for a new well permit and the State Engineer shall within 60 days issue a new well permit with the same terms and conditions as the permit that expired.

(c) Applicants shall submit well permit applications to the State Engineer's office for any replacement, supplemental or additional wells.

(d) Any well permitted pursuant to this decree which is drilled within 200 feet of the decreed location shall be deemed to have been drilled at the decreed well location and shall not require application for a new or amended well permit.

(e) In determining whether good cause exists for granting a request by Applicants to extend well permits for nontributary wells for one or more additional one-year periods pursuant to Section 37-90-137(3)(a)(II), C.R.S. (1985 Supp.), the State Engineer shall recognize that each well decreed herein, and such additional

wells as are required from time to time to fully recover the annual appropriation herein, are part of a single integrated water supply system to be constructed over a phased period of time. So long as Applicants still desire to use the groundwater the well permits shall be extended.

(f) Prior to constructing any additional wells, Applicants shall submit well permit applications to the State Engineer. In considering such permit applications, the State Engineer shall be governed by Section 37-90-137(10), C.R.S. (1985 Supp.) and the provisions of this decree. Any such permitting action may be reviewed by this Court pursuant to Section 37-92-305(6), C.R.S. (1985 Supp.).

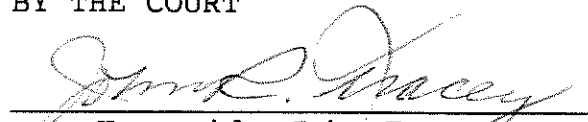
(g) For the purpose of well permit applications, Applicants need not submit separate proof, apart from the terms of this decree, of matters which have been determined herein.

35. Applicants shall geophysically log the entire bore hole of each well prior to the installation of casing. Such logs shall be taken in accordance with the applicable rules promulgated by the State Engineer. In constructing and maintaining any well which will withdraw water from the Laramie-Fox Hills Aquifer under this decree, the Applicants shall seal off and encase the well with an impervious lining at all levels, except the level of the Laramie-Fox Hills Aquifer, to prevent withdrawal of and mixing of groundwater in other aquifers and a totalizing flow meter shall be installed on each well. After construction the Applicants shall attach an identification tag to the well specifying the name of the well, the permit number and the aquifer from which the water is withdrawn. Applicants shall maintain records of the amounts pumped from each well on a monthly basis and such records shall be provided to the Division Engineer or the State Engineer on request.

36. This Court retains jurisdiction in this case for the reconsideration of the final amounts of water appropriated by the proposed wells in accord with Paragraph 29 above. The Court's retained jurisdiction may be invoked only by the Applicants and JVRC, Inc. The Court's retained jurisdiction may be invoked by written notice to the Court requesting a hearing. Copies of that notice will be served on the parties herein at their latest address of record in this case.


Dated this 29 day of Oct., 1986.

BY THE COURT

  
Honorable John Tracey  
Water Judge  
Water Division No. 2  
State of Colorado

APPROVED AS TO FORM AND SUBSTANCE:

SHERMAN & HOWARD


By:   
John L. DeWeerd #9390  
Kenneth L. Salazar #11648  
Suite 2900  
633 Seventeenth Street  
Denver, Colorado 80202

Telephone: (303) 297-2900

Attorneys for Applicants,  
The First Interstate Bank of  
Denver N.A., Carla W. Lewis,  
and Samuel S. Sherman as  
Cotrustees under the Life  
Insurance Trust of  
Thomas M. Dines.

c: Sherman and Howard (Salazar)  
Vranesh & Raisch (Shimmin)  
Division Engineer  
State Engineer

VRANESH & RAISCH

By:   
Michael D. Shimmin, #9182  
Post Office Box 871  
Boulder, Colorado 80306  
Telephone: (303) 443-6151  
Attorneys for Objector  
JVRC, Inc.

Filed in the office of the  
Clerk, District Court Water  
Division No. 2, State of  
Colorado

OCT 29 1986

  
Clerk

EXHIBIT A

The Subject Lands consist of the following:

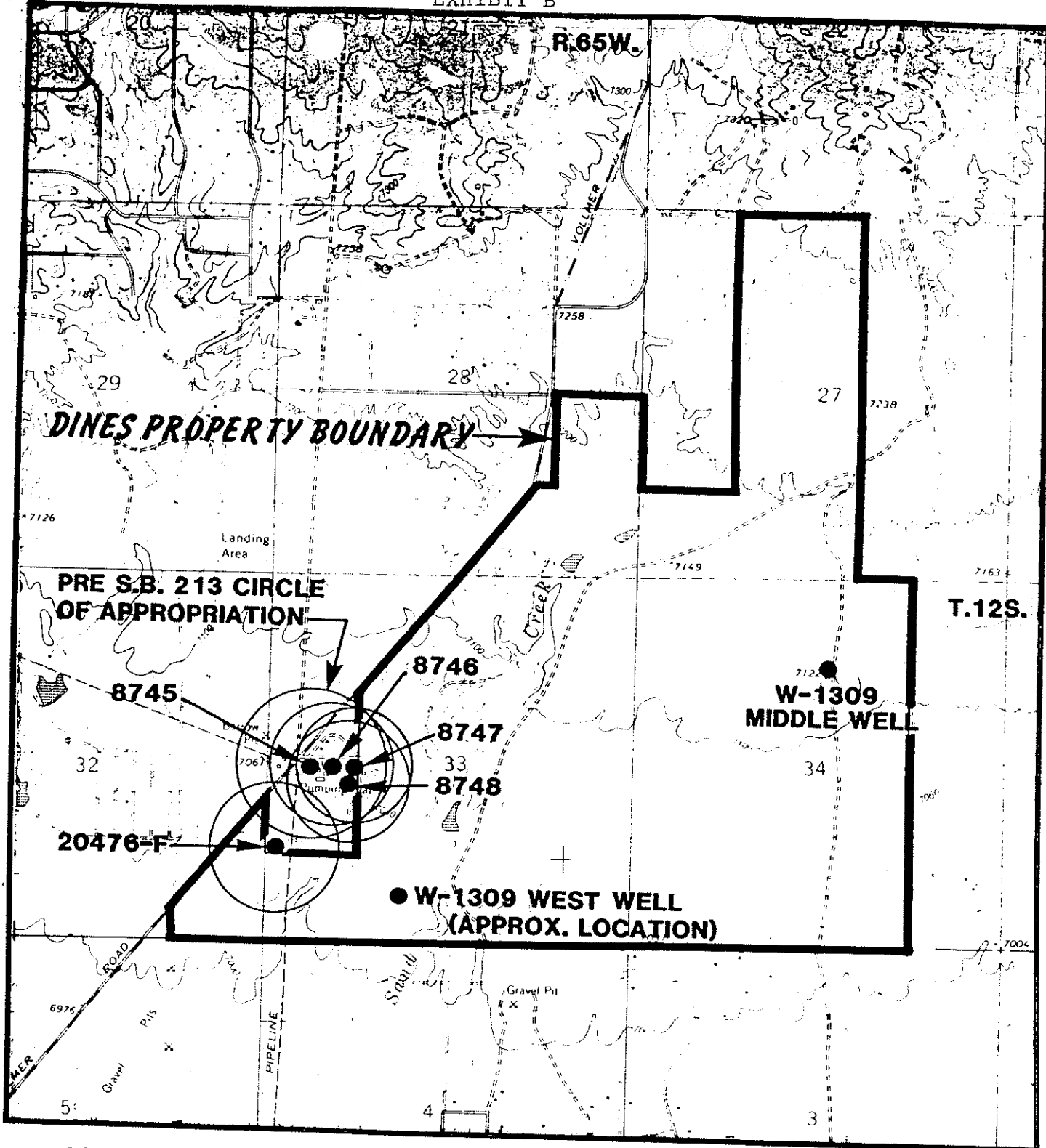
The W1/2 W1/2 E1/2 and the E1/2 W1/2 and the SW1/4 SW1/4 of Section 27; the E1/2 SE1/4 and that portion of the SW1/4 SE1/4 lying South and East of the County Road across said premises, both in Section 28; that portion of the SE1/4 SE1/4 of Section 32 lying South and East of said County Road, and that portion of the NE1/4 SE1/4 of said Section 32, lying South and East of said County Road; the E1/2 and the E1/2 SW1/4 and the SW1/4 SW1/4 of Section 33, and all that part of the NW1/4 of said Section 33 lying South and East of the said County Road across said premises, except that portion of the SW1/4 NW1/4 of said Section 33 lying South and East of said County Road containing approximately 10 acres deeded to Colorado Interstate Gas Company by Warranty Deed recorded in Book 1173 at Page 359 of the El Paso County Records; and the W1/2 E1/2 and the W1/2 of Section 34, all in Township 12 South, Range 65 West of the 6th P.M., located in El Paso County, Colorado.

Filed in the office of the  
Clerk, District Court Water  
Division No. 2, State of  
Colorado

OCT 29 1966

*Priscilla A. L. L. L.*

Clerk



SCALE 1:24000

Filed in the office of the  
Clerk, District Court Water  
Division No. 2, State of  
Colorado

# LOCATION MAP

OCT 29 1986

FIGURE 1



*Priscilla Lyons*  
Clerk

# *Appendix E*





Colorado Department  
of Public Health  
and Environment

**Inorganic Chemicals Certified Laboratory Report Form**  
**WQCD - Drinking Water CAS**  
**4300 Cherry Creek Drive South, Denver, CO 80246-1530**  
**Fax: (303) 758-1398; cdphe.drinkingwater@state.co.us**

Revised 6/13/2014

**IOC**

<b>Section I (Submitted or Completed by Public Water System)</b>		<b>Section II (Submitted or Completed by Certified Laboratory)</b>	
<b>Public Water System Information</b>		<b>Certified Laboratory Information</b>	
PWSID#: CO-0121724		Laboratory ID: CO 0015	
System Name: LFH-1		Laboratory Name: Colorado Analytical Laboratory	
Contact Person: Mark Volle		Contact Person: Customer Service Phone: 303-659-2313	
Comments:		Comments:	
Do Samples Need to be Compositied BY THE LAB? <input type="checkbox"/>			

<b>Section III (Supplied or Completed by Public Water System)</b>			
Sample Date: 2/16/17	Collector: Stephanie Schwe	Sample Pt ID (On Schedule):	

<b>Section IV Inorganic Chemicals (Completed by Certified Laboratory)</b>				
Lab Receipt Date	Lab Analysis Date	Lab Sample ID	Analyte Name	CAS No.
2/17/17	2/17/17	170217005-01	Fluoride	7681-49-4
			Analytical Method	MCL (mg/L)
			EPA 300.0	4
			Lab MRL (mg/L)	0.09
			Result (mg/L)	1.07

NT: Not Tested  
 Lab MRL: Laboratory Minimum Reporting Level  
 BDL: Below Laboratory MRL. A less than (<) may also used.

mg/L: Milligrams per Liter  
 MCL: Maximum Contaminant Level



Drinking Water Chain of Custody



LABORATORIES, INC.

Brighton Lab  
240 South Main Street  
Brighton, CO 80601

Lakewood Lab  
12860 W. Cedar Dr, Suite 100A  
Lakewood CO 80228

Phone: 303-659-2313  
Fax: 303-659-2315

www.coloradolab.com

Report To Information		Bill To Information (if different from report to)		State Form / Project Information	
Company Name: <u>SOS HYDRO</u>	Company Name: <u>SR WATER</u>	State Form / Project Information		PWSID: <u>CO-0121724</u>	
Contact Name: <u>MARK VOLLE</u>	Contact Name: <u>STEVE MORLEY</u>			System Name: <u>LFH-1</u>	
Address: <u>545 E. BAKER PEAK AVE SUITE 300</u>	Address: <u>20 BOULDER CRESSANT ST</u>			Address: <u>NE 1/4 NW 1/4 S27</u>	
City/Co/State/Zip: <u>State CO zip 80903</u>	City/Co/State/Zip: <u>State CO zip 80903</u>			City/Co/State/Zip: <u>State CO zip 80908</u>	
Phone: <u>719-227-0072</u>	Phone: _____			County: <u>EL PASO</u>	
Email: <u>mvolle@jddhydro.com</u>	Email: <u>smorley@3870@aol.com</u>			Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Sampler Name: <u>STEPH SCHWENKE</u>	PO No: _____			Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

CAL Task No.  
170217005

PHASE I, II, V Drinking Water Analyses (check analysis)

Subcontract Analyses

Date	Time	Client Sample ID / EP Code	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	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 <sup>Drinking Water TDS</sup>	Inorganics	Alk./Lang. Index	TOC, DOC (Circle)	SUVA, UV 254 (Circle)	1,4 Dioxene	Gross Alpha/Beta	Radium 226	Radium 228	Radon <sup>Cyanide</sup>	Uranium	
9/16	8:31	A11	3																											
9/16	9:30	A12	3																											
9/16	9:41	A13	3																											
9/16	9:43	A14	1																											
9/16	8:40	A15	1																											
9/16	8:44	A16	1																											
9/16	9:00	A17	1																											
9/16	5:43	A18	1																											
9/16	9:14	A19	3																											

Instructions:

34 + 504 Blank

SOA

CS Info: Fedex

Seals Present Yes  No  Headspace Yes  No

Relinquished By: <u>[Signature]</u>	Date/Time: <u>9/16/17 12:50 PM</u>	Received By: <u>[Signature]</u>	Date/Time: <u>9/17/17</u>	Delivered Via: <u>Fedex</u>	Relinquished By: _____	CS Charge <input type="checkbox"/>	Date/Time: _____	Temp. <u>2</u> °C / <u>1</u> °F	Sample Pres. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
-------------------------------------	------------------------------------	---------------------------------	---------------------------	-----------------------------	------------------------	------------------------------------	------------------	---------------------------------	--



Colorado Department  
of Public Health  
and Environment

**Inorganic Chemicals Certified Laboratory Report Form**  
**WQCD - Drinking Water CAS**  
Submit Online at <http://www.wqcdcompliance.com/login>

Revised 4/13/2015

**IOC**

Section I (Supplied or Completed by Public Water System)		Section II (Supplied or Completed by Certified Laboratory)	
<b>Public Water System Information</b>		<b>Certified Laboratory Information</b>	
PWSID#: CO-0121724		Laboratory ID: CO 0015	
System Name: LFH-1		Laboratory Name: Colorado Analytical Laboratory	
Contact Person: Mark Volle		Contact Person: Customer Service Phone: 303-659-2313	
Comments:		Comments:	
Do Samples Need to be Compositied BY THE LAB? <input type="checkbox"/>			

Section III (Supplied or Completed by Public Water System)	
Sample Date: 2/16/17	Collector: Stephanie Schw
Section IV Inorganic Chemicals (Completed by Certified Laboratory)	

Lab Receipt Date	Lab Analysis Date	Lab Sample ID	Analyte Name	CAS No	Analytical Method	MCL (mg/L)	Lab MRL (mg/L)	Result (mg/L)
2/17/17	2/22/17	170217005-01A	Antimony	7740-36-0	EPA 200.8	0.006	0.001	BDL
2/17/17	2/22/17	170217005-01A	Arsenic	7440-38-2	EPA 200.8	0.01	0.001	0.002
2/17/17	2/22/17	170217005-01A	Barium	7440-39-3	EPA 200.8	2	0.001	0.015
2/17/17	2/22/17	170217005-01A	Beryllium	7440-41-7	EPA 200.8	0.004	0.001	BDL
2/17/17	2/22/17	170217005-01A	Cadmium	7440-43-9	EPA 200.8	0.005	0.001	BDL
2/17/17	2/22/17	170217005-01A	Chromium	7440-47-3	EPA 200.8	0.1	0.001	0.001
2/17/17	2/22/17	170217005-01A	Mercury	7439-97-6	EPA 200.8	0.002	0.0001	BDL
2/17/17	2/22/17	170217005-01A	Nickel	7440-02-0	EPA 200.8	N/A	0.001	0.001
2/17/17	2/24/17	170217005-01A	Selenium	7782-49-2	EPA 200.8	0.05	0.001	BDL
2/17/17	2/22/17	170217005-01A	Sodium	7440-23-5	EPA 200.7	N/A	0.1	142.7
2/17/17	2/22/17	170217005-01A	Thallium	7440-28-0	EPA 200.8	0.002	0.001	BDL

NT: Not Tested  
Lab MRL: Laboratory Minimum Reporting Level  
BDL: Below Laboratory MRL. A less than (<) may also used.

mg/L: Milligrams per Liter  
MCL: Maximum Contaminant Level







**Hazen Research, Inc.**  
 4601 Indiana Street  
 Golden, CO 80403 USA  
 Tel: (303) 279-4501  
 Fax: (303) 276-1528

Lab Control ID: B16917  
 Received: Feb 17, 2017  
 Reported: Mar 20, 2017  
 Purchase Order No.  
 None Received

Customer ID: 20040H  
 Account ID: Z01034  
 Project #: 009-616  
**ANALYTICAL REPORT**

**Stuart Nielson**  
**Colorado Analytical Laboratories, Inc.**

Lab Sample ID		B16917-001						
Customer Sample ID		170217005-01 - Lfh-1 - PWSID: CO0121724 - LFH-1 sampled on 02/16/17 @ 0906 by Stephanie Schwenke						
Parameter	Units	Code	Precision*		Detection	Method	Analysis Date / Time	Analyst
			Result	+/-	Limit			
Gross Alpha	pCi/L	T	0.0	0.0	1.5	SM 7110 B	3/2/17 @ 0840	LD
Gross Beta	pCi/L	T	0.0	2.1	2.2	SM 7110 B	3/2/17 @ 0840	LD
Radium-226	pCi/L	T	0.0	0.2	0.1	SM 7500-Ra B	3/3/17 @ 0825	LD
Radium-228	pCi/L	T	0.0	0.8	0.8	EPA Ra-05	3/14/17 @ 1257	JR
Radon	pCi/L	T	345	25	13.9	SM 7500-Rn B	2/17/17 @ 1500	AN

Certification ID's: CO/EPA CO00008; CT PH-0152; KS E-10265; 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) = Susspended (R) = Total Residual  
 (PD) = Potentially Dissolved < = Less Than



**RAD**

**Radionuclides Certified Laboratory Report Form**  
 WQCD – Drinking Water CAS  
 4300 Cherry Creek Drive South; Denver, CO 80246-1530  
 Fax: (303) 758-1398; cdphe.drinkingwater@state.co.us

**Section I (Supplied or Completed by Public Water System)**

**Public Water System Information**

PWS ID: CO0121724

System Name: Lfb-1

Collector: Stephanie Schwenke

Facility ID (On Schedule):

Sample Pt ID (On Schedule):

Section III (Supplied or Completed by Public Water System)

Section IV Radionuclides (Supplied or Completed by Certified Laboratory)

**Section II (Supplied or Completed by Certified Laboratory)**

**Certified Laboratory Information**

Laboratory ID: CO 00008

Laboratory Name: Hazen Research, Inc.

Contact Person: Jessica Axen

Phone #: 303-279-4501

Comments:

Lab Receipt Date	Lab Analysis Date	Lab Sample ID	Analyte Name (Code)	CAS No.	Analytical Method	MCL	Lab MRL	Result
02/17/2017	03/02/2017	B16917-001	Gross Alpha Including Uranium (4002)	12587-46-1	SM 7110 B	N/A	1.5	0.0(±0.0)
			Combined Uranium (4006)	7440-61-1	D2907-97	30 ug/L		
02/17/2017	03/03/2017	B16917-001	Radium -226 (4020)	13982-63-3	SM 7500-Ra B	N/A	0.1	0.0(±0.2)
02/17/2017	03/14/2017	B16917-001	Radium -228 (4030)	15262-20-1	EPA Ra-05	N/A	0.8	0.0(±0.8)
02/17/2017	03/02/2017	B16917-001	Gross Beta (4100)	12587-47-2	SM 7110 B	50 pCi/L*	2.2	0.0(±2.1)
			Total Dissolved Solids (1930)		EPA 160.3	N/A		

\*The MCL for Gross Beta Particle Activity is 4 mrem/year. Since there is no simple conversion between mrem/year and pCi/L EPA considers 50 pCi/L to be the level of concern.

**Section V Calculated Values**

Calculated Value	Lab MRL
Gross Alpha Excluding Uranium (4000)	15 pCi/L
Combined Radium {-226 & -228} (4010)	5 pCi/L

NT: Not Tested  
 Lab MRL: Laboratory Minimum Reporting Level  
 BDL: Below Laboratory MRL. A less than sign (<) may also be used  
 ug/L: Micrograms per Liter  
 pCi/L: Pico-curies per Liter  
 MCL: Maximum Contaminant Level





## Analytical Results

TASK NO: 170217005

**Report To:** Mark Volle  
**Company:** JDS Hydro Consultants  
 545 E. Pikes Peak Ave  
 Suite 300  
 Colorado Springs CO 80903

**Bill To:** Jim Morley  
**Company:** SR Water  
 20 Boulder Crescent St.  
 Colorado Springs CO 80903

**Task No.:** 170217005  
**Client PO:**  
**Client Project:** LFH-1 CO-0121724

**Date Received:** 2/17/17  
**Date Reported:** 3/6/17  
**Matrix:** Water - Drinking

**Customer Sample ID** LFH-1  
**Sample Date/Time:** 2/16/17  
**Lab Number:** 170217005-01

Test	Result	Method	ML	Date Analyzed	Analyzed By
Bicarbonate	155.5 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.1	2/20/17	VDB
Calcium as CaCO <sub>3</sub>	6.3 mg/L	SM 3111-B	0.1	2/24/17	MBN
Carbonate	4.0 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.1	2/20/17	VDB
Langelier Index	-0.43 units	SM 2330-B		2/24/17	SAN
pH	8.44 units	SM 4500-H-B	0.01	2/17/17	MBN
Temperature	20 °C	SM 4500-H-B	1	2/17/17	MBN
Total Alkalinity	159.5 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.1	2/20/17	VDB
Total Dissolved Solids	456 mg/L	SM 2540-C	5	2/23/17	ISG

**Abbreviations/ References:**

ML = Minimum Level = LRL = RL  
 mg/L = Milligrams Per Liter or PPM  
 ug/L = Micrograms Per Liter or PPB  
 mpn/100 ml = Most Probable Number Index/ 100 ml  
 Date Analyzed = Date Test Completed



DATA APPROVED FOR RELEASE BY







Colorado Department  
of Public Health  
and Environment

**Nitrate and Nitrite as Nitrogen Certified Laboratory Report Form**  
**WQCD - Drinking Water CAS**  
**Submit Online at <http://www.wqcdcompliance.com/login>**

Revised 4/13/2015

**NOX**

Section I (Supplied or Completed by Public Water System)		Section II (Supplied or Completed by Certified Laboratory)	
<b>Public Water System Information</b>		<b>Certified Laboratory Information</b>	
PWSID#: CO-0121724		Laboratory ID: CO 0015	
System Name: LFH-1		Laboratory Name: Colorado Analytical Laboratory	
Contact Person: Mark Volle	Phone #: 719-227-0072	Contact Person: Customer Service	Phone: 303-659-2313
Comments:			

Section III (Supplied or Completed by Public Water System)				Section IV (Supplied or Completed by Certified Laboratory)								
Sample Date	Collector	Facility ID On Schedule	Sample Pt. ID On Schedule	Confirmation?	Lab Receipt Date	Lab Analysis Date	1 laboratory Sample ID #	Analyte	Analytical Method	MCL (mg/L)	Lab MRI. (mg/L)	Result (mg/L)
2/16/17	ephanie Schwenk			<input type="checkbox"/>	2/17/17	2/17/17	170217005-01	Nitrate Nitrogen	EPA 300.0	10	0.1	BDL
2/16/17	ephanie Schwenk			<input type="checkbox"/>	2/17/17	2/17/17	170217005-01	Nitrite Nitrogen	EPA 300.0	1	0.1	BDL

NT: Not Tested  
 Lab MRI.: Laboratory Minimum Reporting Level  
 BDL: Below Laboratory MRI. A less than (<) may also used.

mg/L: Milligrams per Liter  
 MCL: Maximum Contaminant Level







Colorado Department  
of Public Health  
and Environment

**Organic Chemicals Certified Laboratory Report Form**  
**WQCD - Drinking Water CAS**  
Submit Online at <http://www.wqcdcompliance.com/login>

Revised 4/13/2015

**VOC/SOC**

<b>Section I (Supplied or Completed by Public Water System)</b>	<b>Section II (Supplied or Completed by Certified Laboratory)</b>
<b>Public Water System Information</b>	<b>Certified Laboratory Information</b>
PWSID#: CO-0121724	Laboratory ID: CO 00063
System Name: LFH-1	Laboratory Name: Colorado Analytical Laboratory
Contact Person: Mark Voile	Contact Person: Customer Service      Phone: 303-659-2313
Comments:	Comments:
Do Samples Need to be Composited BY THE LAB? <input type="checkbox"/>	

Section V (Supplied or Completed by Public Water System)		Section VI Synthetic Organic Chemicals (Supplied or Completed by Certified Laboratory)		Section VII (On Schedule)				
Lab Receipt Date	Lab Analysis Date	Lab Sample ID	Analyte Name	CAS No.	Analytical Method	MCL (ug/L)	Lab MRL (ug/L)	Result (ug/L)
2/17/17	2/24/17	170217005-01E	Dibromochloropropane	96-12-8	EPA 504.1	0.2	0.02	BDL
2/17/17	3/1/17	170217005-01G	2,4-D	94-75-7	EPA 515.4	70	0.1	BDL
2/17/17	3/1/17	170217005-01G	2,4,5-TP	93-72-1	EPA 515.4	50	0.2	BDL
2/17/17	2/23/17	170217005-01H	Aldicarb	15972-60-8	EPA 525.2	2	0.2	BDL
2/17/17	3/2/17	170217005-01I	Aldicarb	116-06-3	EPA 531.1	N/A	0.6	BDL
2/17/17	3/2/17	170217005-01I	Aldicarb sulfone	1646-88-4	EPA 531.1	N/A	1	BDL
2/17/17	3/2/17	170217005-01I	Aldicarb sulfoxide	1646-87-3	EPA 531.1	N/A	0.7	BDL
2/17/17	2/23/17	170217005-01III	Atrazine	1912-24-9	EPA 525.2	3	0.1	BDL
2/17/17	2/23/17	170217005-01H	Benzo(a)pyrene	50-32-8	EPA 525.2	0.2	0.02	BDL
2/17/17	3/2/17	170217005-01I	Carbofuran	1563-66-2	EPA 531.1	40	0.9	BDL
2/17/17	2/24/17	170217005-01F	Chlordane	57-74-9	EPA 505	2	0.2	BDL
2/17/17	3/1/17	170217005-01G	Dalapon	75-99-0	EPA 515.4	200	1	BDL
2/17/17	2/23/17	170217005-01III	Di(2-ethylhexyl)adipate	103-23-1	EPA 525.2	400	0.6	BDL
2/17/17	2/23/17	170217005-01H	Di(2-ethylhexyl)phthalate	117-81-7	EPA 525.2	6	0.6	BDL
2/17/17	3/1/17	170217005-01G	Dinosob	85-85-7	EPA 515.4	7	0.2	BDL
2/17/17	2/23/17	170217005-01K	Diquat	85-00-7	EPA 549.2	20	0.4	BDL
2/17/17	2/23/17	170217005-01J	Endothall	145-73-3	EPA 548.1	100	9	BDL
2/17/17	2/24/17	170217005-01F	Endrin	72-20-8	EPA 505	2	0.01	BDL
2/17/17	2/24/17	170217005-01E	Ethylene dibromide	106-93-4	EPA 504.1	0.05	0.01	BDL
2/17/17	2/23/17	170217005-01H	Heptachlor	76-44-8	EPA 525.2	0.4	0.04	BDL
2/17/17	2/24/17	170217005-01F	Heptachlor epoxide	1024-57-3	EPA 505	0.2	0.02	BDL

NT: Not Tested ug/L; Micrograms per Liter MCL: Maximum Contaminant Level BDL Below Laboratory MRL ^ less than sign (<) may also be used.



PWSID#: CO-0121724		Section V (Supplied or Completed by Public Water System)						
Sample Date:	2/16/17	Collector:	Stephanie Schwenk	Facility ID (On Schedule):	Sample Pt ID (On Schedule):			
Section VI Synthetic Organic Chemicals (Supplied or Completed by Certified Laboratory)		Lab Sample ID	Analyte Name	CAS No.	Analytical Method	MCL (ug/L)	Lab MRL (ug/L)	Result (ug/L)
2/17/17	2/24/17	170217005-01F	Hexachlorobenzene	118-74-1	EPA 505	1	0.1	BDL
2/17/17	2/24/17	170217005-01F	Hexachlorocyclopentadiene	77-47-4	EPA 505	50	0.1	BDL
2/17/17	2/24/17	170217005-01F	Lindane	58-89-9	EPA 505	0.2	0.02	BDL
2/17/17	2/24/17	170217005-01F	Methoxychlor	72-43-5	EPA 505	40	0.1	BDL
2/17/17	3/2/17	170217005-01I	Oxamyl	23135-22-0	HPA 531.1	200	1	BDL
2/17/17	3/1/17	170217005-01G	Pentachlorophenol	87-86-5	EPA 515.4	1	0.04	BDL
2/17/17	3/1/17	170217005-01G	Picloram	1918-02-1	EPA 515.4	500	0.1	BDL
2/17/17	2/24/17	170217005-01F	Polychlorinated biphenyl's	1336-36-3	EPA 505	0.5	0.1	BDL
2/17/17	2/23/17	170217005-01H	Simazine	122-34-9	EPA 525.2	4	0.07	BDL
2/17/17	2/24/17	170217005-01F	Toxaphene	8001-35-2	EPA 505	3	1	BDL

NT: Not Tested ug/L; Micrograms per Liter MCL: Maximum Contaminant Level BDL: Below Laboratory MRL  $\Delta$  less than sign (<) may also be used.

170217005-01

2/2  
3/6/17



Drinking Water Chain of Custody



LABORATORIES, INC.

Brighton Lab  
240 South Main Street  
Brighton, CO 80601

Lakewood Lab  
12860 W. Cedar Dr, Suite 100A  
Lakewood CO 80228

Phone: 303-659-2313  
Fax: 303-659-2315

www.coloradolab.com

Report To Information		Bill To Information (if different from report to)		State Form / Project Information	
Company Name: <u>JDS HYDRO</u>	Contact Name: <u>MARK VOLLE</u>	Company Name: <u>SR WATER</u>	Contact Name: <u>JEFF MOKLEY</u>	PWSID: <u>CO-0121724</u>	System Name: <u>LFH-1</u>
Address: <u>545 E. BOKES PEAK AVE</u> <u>SUITE 300</u>	Address: <u>20 BOULDER CRESSANT ST</u>	Address: <u>NEW NW 1/4 S27</u> <u>T125 R65W 6TH PM</u>	City/COLO SP65 State CO ZIP <u>80903</u>	City/COLO SP65 State CO ZIP <u>80908</u>	City/COLO SP65 State CO ZIP <u>80908</u>
Phone: <u>719-227-0072</u> Fax:	Phone:	Fax:	County: <u>EL PASO</u>	Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Email: <u>mwalle@jdshydro.com</u>	Email: <u>smorley@3870@aol.com</u>	PHASE I, II, V Drinking Water Analyses (check analysis)			
Sampler Name: <u>STEPA SCHWENKE</u>	PO No.:	Subcontract Analyses			

CAL Task No. 170217005

Date	Time	Client Sample ID / EP Code	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	525.2 SOC's-Pest	531.1 Carbamates	547 Glyphosate	548.1 Endothall	549.2 Diquat	524.2 TTHMs	552.2 HAA5s	Lead/Copper	Nitrate	Nitrite	Fluoride <sup>Drinking Water</sup>	Inorganics	Alk./Lang. Index	TOC, DOC (Circle)	SUVA, UV 254 (Circle)	1,4 Dioxane	Gross Alpha/Beta	Radium 226	Radium 228	Radon <sup>Cyanide</sup>	Uranium
9/16	8:37	A11	3																										
9/16	9:50	A12	3																										
9/16	9:51	A13	3																										
9/16	9:43	A14	1																										
9/16	8:40	A15	1																										
9/16	8:44	A16	1																										
9/16	9:02	A17	1																										
9/16	9:42	A18	1																										
9/16	9:29	A19	3																										

34 + 504 Blank

VOA

CS Info: Fedex

Seals Present Yes  No  Headspace Yes  No

Relinquished By: [Signature] Date/Time: 9/16/17 12:15 PM Received By: [Signature] Date/Time: 9/17/17 0800

Delivered Via: Fedex Relinquished By: [Signature] Date/Time: 9/17/17

Temp. 2 °C/lit Received By: [Signature] Sample Pres. Yes  No  Date/Time: [Signature]

Phase I results on state forms

## Analytical Results

TASK NO: 170217005

Report To: Mark Voile

Company: JDS Hydro Consultants  
545 E. Pikes Peak Ave  
Suite 300  
Colorado Springs CO 80903

Bill To: Jim Morley

Company: SR Water  
20 Boulder Crescent St.  
Colorado Springs CO 80903

Task No.: 170217005  
Client PO:  
Client Project: LFH-1 CO-0121724

Date Received: 2/17/17  
Date Reported: 3/6/17  
Matrix: Water - Drinking

Customer Sample ID LFH-1  
Sample Date/Time: 2/16/17  
Lab Number: 170217005-01

Test	Result	Method	ML	Date Analyzed	Analyzed By
Chloride	5.8 mg/L	EPA 300.0	0.1 mg/L	2/17/17	LJG
Cyanide-Free	< 0.005 mg/L	EPA 335.4	0.005 mg/L	2/24/17	VDB
E-Coli	< 1 mpn/100ml	Colitert	1 mpn/100ml	2/18/17	VDB
Sulfate	142.1 mg/L	EPA 300.0	0.1 mg/L	2/17/17	LJG
Total Coliform	93 mpn/100ml	Colitert	1 mpn/100ml	2/18/17	VDB
Total Organic Carbon	0.8 mg/L	SM 5310-C	0.5 mg/L	2/23/17	ISG
Turbidity	2.49 NTU	SM 2130-B	0.01 NTU	2/17/17	MBN
<b>Total</b>					
Aluminum	0.053 mg/L	EPA 200.8	0.001 mg/L	2/22/17	TCD
Calcium	2.5 mg/L	EPA 200.7	0.1 mg/L	2/22/17	MBN
Copper	0.0026 mg/L	EPA 200.8	0.0008 mg/L	2/22/17	TCD
Iron	0.602 mg/L	EPA 200.7	0.005 mg/L	2/24/17	MBN
Lead	0.0005 mg/L	EPA 200.8	0.0001 mg/L	2/22/17	TCD
Magnesium	0.39 mg/L	EPA 200.7	0.02 mg/L	2/22/17	MBN
Manganese	0.0259 mg/L	EPA 200.8	0.0008 mg/L	2/22/17	TCD
Potassium	1.5 mg/L	EPA 200.7	0.1 mg/L	2/22/17	MBN
Silver	< 0.0001 mg/L	EPA 200.8	0.0001 mg/L	2/22/17	TCD
Strontium	0.037 mg/L	EPA 200.8	0.005 mg/L	2/22/17	TCD
Total Hardness	7.7 mg/L as CaCO3	SM 2340-B	0.1 mg/L as CaCO3	2/24/17	MBN
Uranium	< 0.0002 mg/L	EPA 200.8	0.0002 mg/L	2/22/17	TCD
Zinc	0.004 mg/L	EPA 200.8	0.001 mg/L	2/22/17	TCD

**Abbreviations/ References:**

ML = Minimum Level = LRL = RL  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 ml = Most Probable Number Index/ 100 ml  
Date Analyzed = Date Test Completed



DATA APPROVED FOR RELEASE BY

## Analytical Results

**TASK NO: 170217005**

**Report To:** Mark Voile

**Company:** JDS Hydro Consultants  
545 E. Pikes Peak Ave  
Suite 300  
Colorado Springs CO 80903

**Bill To:** Jim Morley

**Company:** SR Water  
20 Boulder Crescent St.  
Colorado Springs CO 80903

**Task No.:** 170217005  
**Client PO:**  
**Client Project:** LFH-1 CO-0121724

**Date Received:** 2/17/17  
**Date Reported:** 3/6/17  
**Matrix:** Water - Drinking

**Customer Sample ID:** LFH-1  
**Sample Date/Time:** 2/16/17  
**Lab Number:** 170217005-01

Test	Result	Method	ML	Date Analyzed	Analyzed By
<u>Total</u> Zinc	0.005 mg/L	EPA 200.8	0.001 mg/L	2/22/17	TCD

**Abbreviations/ References:**

ML = Minimum Level = LRL = RL  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 ml = Most Probable Number Index/ 100 ml  
Date Analyzed = Date Test Completed



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# ANALYTICAL SUMMARY REPORT

March 02, 2017

Colorado Analytical Laboratories Inc  
PO Drawer 507  
Brighton, CO 80601

Work Order: C17020566      Quote ID: C4542 - 624, 625, 1,4-Dioxane  
Project Name: 170217005 LFH-1 CO-0121724

Energy Laboratories, Inc. Casper WY received the following 1 sample for Colorado Analytical Laboratories Inc on 2/21/2017 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C17020566-001	170217005-01 LFH-1	02/16/17 0:00	02/21/17	Drinking Water	Azeotropic Distillation Separatory Funnel Liquid-Liquid Ext. Semi-Volatile Organic Compounds 624-Purgeable Organics Volatile Compounds by Azeotropic Distillation

The results as reported relate only to the item(s) submitted for testing. The analyses presented in this report were performed at Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these test results, please call.

Report Approved By:

  
Randy Horton, Project Manager

Digitally signed by  
Randy Horton  
Date: 2017.03.02 10:49:28 -07:00





**CLIENT:** Colorado Analytical Laboratories Inc  
**Project:** 170217005 LFH-1 CO-0121724  
**Work Order:** C17020566

**Report Date:** 03/02/17

## CASE NARRATIVE

---

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.



**LABORATORY ANALYTICAL REPORT**

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170217005 LFH-1 CO-0121724  
**Lab ID:** C17020566-001  
**Client Sample ID:** 170217005-01 LFH-1

**Report Date:** 03/02/17  
**Collection Date:** 02/16/17  
**Date Received:** 02/21/17  
**Matrix:** Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>VOCS BY AZEOTROPIC DISTILLATION</b>							
1,4-Dioxane	ND	ug/L		1.0		SW8260M	02/27/17 11:16 / eli-b
- Analysis by direct aqueous injection of the sample distillate. A deuterated version of 1,4-Dioxane was added to the sample prior to distillation and used to quantitate the 1,4-Dioxane and account for any variations in the analysis or distillation.							
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		E624	02/24/17 19:19 / eli-b
Acetonitrile	ND	ug/L		20		E624	02/24/17 19:19 / eli-b
Acrolein	ND	ug/L		20		E624	02/24/17 19:19 / eli-b
Acrylonitrile	ND	ug/L		20		E624	02/24/17 19:19 / eli-b
Benzene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Bromobenzene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Bromochloromethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Bromodichloromethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Bromoform	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Bromomethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Carbon disulfide	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Carbon tetrachloride	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Chlorobenzene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Chlorodibromomethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Chloroethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Chloroform	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Chloromethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
2-Chlorotoluene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
4-Chlorotoluene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,2-Dibromoethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Dibromomethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,2-Dichlorobenzene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,3-Dichlorobenzene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,4-Dichlorobenzene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Dichlorodifluoromethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,1-Dichloroethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,2-Dichloroethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,1-Dichloroethene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
cis-1,2-Dichloroethene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
trans-1,2-Dichloroethene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,2-Dichloropropane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,3-Dichloropropane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
2,2-Dichloropropane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,1-Dichloropropene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
cis-1,3-Dichloropropene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
trans-1,3-Dichloropropene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Ethylbenzene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170217005 LFH-1 CO-0121724  
**Lab ID:** C17020566-001  
**Client Sample ID:** 170217005-01 LFH-1

**Report Date:** 03/02/17  
**Collection Date:** 02/16/17  
**Date Received:** 02/21/17  
**Matrix:** Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Methyl tert-butyl ether (MTBE)	ND	ug/L		2.0		E624	02/24/17 19:19 / eli-b
Methyl ethyl ketone	ND	ug/L		20		E624	02/24/17 19:19 / eli-b
Methyl isobutyl ketone	ND	ug/L		10		E624	02/24/17 19:19 / eli-b
Methylene chloride	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Naphthalene	ND	ug/L		0.50		E624	02/24/17 19:19 / eli-b
Styrene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Tetrachloroethene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Toluene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Trichloroethene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,1,1-Trichloroethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,1,2-Trichloroethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Trichlorofluoromethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,2,3-Trichloropropane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Vinyl Acetate	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Vinyl chloride	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
m+p-Xylenes	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
o-Xylene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Xylenes, Total	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Surr: 1,2-Dichloroethane-d4	76.0	%REC		71-139		E624	02/24/17 19:19 / eli-b
Surr: p-Bromofluorobenzene	92.0	%REC		80-127		E624	02/24/17 19:19 / eli-b
Surr: Toluene-d8	94.0	%REC		80-123		E624	02/24/17 19:19 / eli-b
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
Acenaphthene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Acenaphthylene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Anthracene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Azobenzene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Benzidine	ND	ug/L		10		E625	02/28/17 13:13 / eli-b
Benzo(a)anthracene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Benzo(a)pyrene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Benzo(b)fluoranthene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Benzo(g,h,i)perylene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Benzo(k)fluoranthene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
4-Bromophenyl phenyl ether	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Butylbenzylphthalate	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
4-Chloro-3-methylphenol	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
bis(-2-chloroethoxy)Methane	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
bis(-2-chloroethyl)Ether	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
bis(2-chloroisopropyl)Ether	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
2-Chloronaphthalene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
2-Chlorophenol	ND	ug/L		10		E625	02/27/17 19:27 / eli-b

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



**LABORATORY ANALYTICAL REPORT**

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170217005 LFH-1 CO-0121724  
**Lab ID:** C17020566-001  
**Client Sample ID:** 170217005-01 LFH-1

**Report Date:** 03/02/17  
**Collection Date:** 02/16/17  
**Date Received:** 02/21/17  
**Matrix:** Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
4-Chlorophenyl phenyl ether	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Chrysene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Diethyl phthalate	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Di-n-butyl phthalate	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
1,2-Dichlorobenzene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
1,3-Dichlorobenzene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
1,4-Dichlorobenzene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
3,3'-Dichlorobenzidine	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
2,4-Dichlorophenol	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Dimethyl phthalate	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Di-n-octyl phthalate	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Dibenzo(a,h)anthracene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
2,4-Dimethylphenol	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
4,6-Dinitro-2-methylphenol	ND	ug/L		50		E625	02/27/17 19:27 / eli-b
2,4-Dinitrophenol	ND	ug/L		50		E625	02/27/17 19:27 / eli-b
2,4-Dinitrotoluene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
2,6-Dinitrotoluene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
bis(2-ethylhexyl)Phthalate	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Fluoranthene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Fluorene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Hexachlorobenzene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Hexachlorobutadiene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Hexachlorocyclopentadiene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Hexachloroethane	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Indeno(1,2,3-cd)pyrene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Isophorone	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
n-Nitrosodimethylamine	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
n-Nitroso-di-n-propylamine	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
n-Nitrosodiphenylamine	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
2-Nitrophenol	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
4-Nitrophenol	ND	ug/L		50		E625	02/27/17 19:27 / eli-b
Naphthalene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Nitrobenzene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Pentachlorophenol	ND	ug/L		50		E625	02/27/17 19:27 / eli-b
Phenanthrene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Phenol	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Pyrene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
1,2,4-Trichlorobenzene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
2,4,6-Trichlorophenol	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Surr: 2-Fluorobiphenyl	59.0	%REC		28-107		E625	02/27/17 19:27 / eli-b
Surr: 2-Fluorophenol	34.0	%REC		20-56		E625	02/27/17 19:27 / eli-b
Surr: Nitrobenzene-d5	63.0	%REC		32-94		E625	02/27/17 19:27 / eli-b
Surr: Phenol-d5	33.0	%REC		19-45		E625	02/27/17 19:27 / eli-b

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170217005 LFH-1 CO-0121724  
**Lab ID:** C17020566-001  
**Client Sample ID:** 170217005-01 LFH-1

**Report Date:** 03/02/17  
**Collection Date:** 02/16/17  
**Date Received:** 02/21/17  
**Matrix:** Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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#### SEMI-VOLATILE ORGANIC COMPOUNDS

Surr: Terphenyl-d14	69.0	%REC		32-122		E625	02/27/17 19:27 / eli-b
Surr: 2,4,6-Tribromophenol	60.0	%REC		21-130		E625	02/27/17 19:27 / eli-b

• The sample was received past the extraction prep hold time. The prep hold time was exceeded by 4.31 days.

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170217005 LFH-1 CO-0121724

**Report Date:** 03/02/17  
**Work Order:** C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
<b>Method: E624</b>							<b>Analytical Run: R275391</b>			
<b>Lab ID: ccv022417</b>	<b>Continuing Calibration Verification Standard</b>							<b>02/24/17 09:51</b>		
Acetone	40.8	ug/L	20	82	70	130				
Acetonitrile	60.0	ug/L	20	120	70	130				
Acrolein	59.2	ug/L	20	118	70	130				
Acrylonitrile	46.4	ug/L	20	93	70	130				
Benzene	4.80	ug/L	0.50	96	70	130				
Bromobenzene	4.56	ug/L	0.50	91	70	130				
Bromochloromethane	4.64	ug/L	0.50	93	70	130				
Bromodichloromethane	4.08	ug/L	0.50	82	70	130				
Bromoform	4.08	ug/L	0.50	82	70	130				
Bromomethane	5.56	ug/L	0.50	111	70	130				
Carbon disulfide	4.80	ug/L	0.50	96	70	130				
Carbon tetrachloride	3.70	ug/L	0.50	74	70	130				
Chlorobenzene	4.80	ug/L	0.50	96	70	130				
Chlorodibromomethane	4.32	ug/L	0.50	86	70	130				
Chloroethane	4.88	ug/L	0.50	98	70	130				
2-Chloroethyl vinyl ether	3.07	ug/L	1.0	61	70	130			S	
Chloroform	4.36	ug/L	0.50	87	70	130				
Chloromethane	4.60	ug/L	0.50	92	70	130				
2-Chlorotoluene	4.84	ug/L	0.50	97	70	130				
4-Chlorotoluene	4.80	ug/L	0.50	96	70	130				
1,2-Dibromoethane	4.40	ug/L	0.50	88	70	130				
Dibromomethane	4.60	ug/L	0.50	92	70	130				
1,2-Dichlorobenzene	4.72	ug/L	0.50	94	70	130				
1,3-Dichlorobenzene	4.84	ug/L	0.50	97	70	130				
1,4-Dichlorobenzene	4.76	ug/L	0.50	95	70	130				
Dichlorodifluoromethane	3.87	ug/L	0.50	77	70	130				
1,1-Dichloroethane	4.40	ug/L	0.50	88	70	130				
1,2-Dichloroethane	3.78	ug/L	0.50	76	70	130				
1,1-Dichloroethene	4.20	ug/L	0.50	84	70	130				
cis-1,2-Dichloroethene	4.72	ug/L	0.50	94	70	130				
trans-1,2-Dichloroethene	4.64	ug/L	0.50	93	70	130				
1,2-Dichloropropane	5.20	ug/L	0.50	104	70	130				
1,3-Dichloropropane	4.64	ug/L	0.50	93	70	130				
2,2-Dichloropropane	3.92	ug/L	0.50	78	70	130				
1,1-Dichloropropene	4.40	ug/L	0.50	88	70	130				
cis-1,3-Dichloropropene	4.56	ug/L	0.50	91	70	130				
trans-1,3-Dichloropropene	4.04	ug/L	0.50	81	70	130				
Ethylbenzene	4.84	ug/L	0.50	97	70	130				
Methyl tert-butyl ether (MTBE)	3.68	ug/L	0.50	74	70	130				
Methyl ethyl ketone	42.8	ug/L	20	86	70	130				
Methyl isobutyl ketone	45.6	ug/L	20	91	70	130				
Methylene chloride	5.44	ug/L	0.50	109	70	130				
Naphthalene	4.88	ug/L	0.50	98	70	130				

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 03/02/17

Project: 170217005 LFH-1 CO-0121724

Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624							Analytical Run: R275391		
Lab ID: ccv022417	Continuing Calibration Verification Standard						02/24/17 09:51		
Styrene	4.76	ug/L	0.50	95	70	130			
Tetrachloroethene	4.60	ug/L	0.50	92	70	130			
1,1,1,2-Tetrachloroethane	4.24	ug/L	0.50	85	70	130			
1,1,2,2-Tetrachloroethane	4.96	ug/L	0.50	99	70	130			
Toluene	4.96	ug/L	0.50	99	70	130			
Trichloroethene	4.80	ug/L	0.50	96	70	130			
1,1,1-Trichloroethane	3.75	ug/L	0.50	75	70	130			
1,1,2-Trichloroethane	4.76	ug/L	0.50	95	70	130			
Trichlorofluoromethane	3.34	ug/L	0.50	67	70	130			S
1,2,3-Trichloropropane	4.20	ug/L	0.50	84	70	130			
Vinyl Acetate	4.56	ug/L	1.0	91	70	130			
Vinyl chloride	4.84	ug/L	0.50	97	70	130			
m+p-Xylenes	9.76	ug/L	0.50	98	70	130			
o-Xylene	4.76	ug/L	0.50	95	70	130			
Xylenes, Total	14.5	ug/L	0.50	97	70	130			
Surr: 1,2-Dichloroethane-d4			0.50	74	71	139			
Surr: p-Bromofluorobenzene			0.50	88	80	127			
Surr: Toluene-d8			0.50	92	80	123			

Method: E624							Batch: R275391		
Lab ID: ics022417	Laboratory Control Sample						Run: 5971A.I_170224A		02/24/17 10:31
Acetone	41.6	ug/L	20	83	55	144			
Acetonitrile	60.4	ug/L	20	121	54	142			
Acrolein	49.6	ug/L	20	99	16	233			
Acrylonitrile	46.0	ug/L	20	92	76	127			
Benzene	4.96	ug/L	0.50	99	73	122			
Bromobenzene	4.76	ug/L	0.50	95	74	129			
Bromochloromethane	4.64	ug/L	0.50	93	66	120			
Bromodichloromethane	4.44	ug/L	0.50	89	74	128			
Bromoform	4.36	ug/L	0.50	87	66	128			
Bromomethane	5.76	ug/L	0.50	115	51	123			
Carbon disulfide	4.92	ug/L	0.50	98	46	145			
Carbon tetrachloride	3.80	ug/L	0.50	76	75	125			
Chlorobenzene	4.92	ug/L	0.50	98	80	123			
Chlorodibromomethane	4.64	ug/L	0.50	93	74	125			
Chloroethane	5.04	ug/L	0.50	101	59	142			
2-Chloroethyl vinyl ether	2.74	ug/L	1.0	55	36	144			
Chloroform	4.40	ug/L	0.50	88	68	124			
Chloromethane	4.64	ug/L	0.50	93	53	146			
2-Chlorotoluene	5.04	ug/L	0.50	101	75	131			
4-Chlorotoluene	4.68	ug/L	0.50	94	74	129			
1,2-Dibromoethane	4.40	ug/L	0.50	88	76	124			
Dibromomethane	4.76	ug/L	0.50	95	77	125			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc  
Project: 170217005 LFH-1 CO-0121724

Report Date: 03/02/17  
Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E624</b>							Batch: R275391		
<b>Lab ID: lcs022417</b>	<b>Laboratory Control Sample</b>				<b>Run: 5971A.L_170224A</b>		<b>02/24/17 10:31</b>		
1,2-Dichlorobenzene	4.80	ug/L	0.50	96	74	124			
1,3-Dichlorobenzene	5.00	ug/L	0.50	100	77	122			
1,4-Dichlorobenzene	4.80	ug/L	0.50	96	76	126			
Dichlorodifluoromethane	4.36	ug/L	0.50	87	56	146			
1,1-Dichloroethane	4.56	ug/L	0.50	81	74	133			
1,2-Dichloroethane	3.76	ug/L	0.50	75	75	129			
1,1-Dichloroethene	4.28	ug/L	0.50	86	74	132			
cis-1,2-Dichloroethene	4.76	ug/L	0.50	95	81	122			
trans-1,2-Dichloroethene	5.08	ug/L	0.50	102	79	143			
1,2-Dichloropropane	5.20	ug/L	0.50	104	75	126			
1,3-Dichloropropane	4.32	ug/L	0.50	86	71	136			
2,2-Dichloropropane	4.00	ug/L	0.50	80	68	142			
1,1-Dichloropropene	4.16	ug/L	0.50	83	70	131			
cis-1,3-Dichloropropene	4.12	ug/L	0.50	82	74	135			
trans-1,3-Dichloropropene	3.96	ug/L	0.50	79	76	149			
Ethylbenzene	4.92	ug/L	0.50	98	72	130			
Methyl tert-butyl ether (MTBE)	3.71	ug/L	0.50	74	72	120			
Methyl ethyl ketone	45.2	ug/L	20	90	45	130			
Methyl isobutyl ketone	49.2	ug/L	20	98	58	135			
Methylene chloride	5.64	ug/L	0.50	113	66	142			
Naphthalene	5.44	ug/L	0.50	109	69	124			
Styrene	4.84	ug/L	0.50	97	80	124			
Tetrachloroethene	4.68	ug/L	0.50	94	72	131			
1,1,1,2-Tetrachloroethane	4.16	ug/L	0.50	83	78	124			
1,1,2,2-Tetrachloroethane	4.72	ug/L	0.50	94	68	137			
Toluene	5.16	ug/L	0.50	103	72	135			
Trichloroethene	4.80	ug/L	0.50	96	85	126			
1,1,1-Trichloroethane	3.73	ug/L	0.50	75	63	120			
1,1,2-Trichloroethane	4.68	ug/L	0.50	94	78	124			
Trichlorofluoromethane	3.30	ug/L	0.50	66	72	120			S
1,2,3-Trichloropropane	4.04	ug/L	0.50	81	64	138			
Vinyl Acetate	4.08	ug/L	1.0	82	31	124			
Vinyl chloride	5.12	ug/L	0.50	102	58	140			
m+p-Xylenes	9.84	ug/L	0.50	98	67	139			
o-Xylene	4.84	ug/L	0.50	97	74	135			
Xylenes, Total	14.7	ug/L	0.50	98	70	137			
Surr: 1,2-Dichloroethane-d4			0.50	72	71	139			
Surr: p-Bromofluorobenzene			0.50	87	80	127			
Surr: Toluene-d8			0.50	92	80	123			
<b>Lab ID: blk022417</b>	<b>Method Blank</b>				<b>Run: 5971A.L_170224A</b>		<b>02/24/17 11:30</b>		
Acetone	ND	ug/L		20					
Acetonitrile	ND	ug/L		20					

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.





# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 03/02/17

Project: 170217005 LFH-1 CO-0121724

Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624									Batch: R275391
Lab ID: blk022417	Method Blank								Run: 5971A.L_170224A 02/24/17 11:30
Acrolein	ND	ug/L		20					
Acrylonitrile	ND	ug/L		3.0					
Benzene	ND	ug/L		0.50					
Bromobenzene	ND	ug/L		0.50					
Bromochloromethane	ND	ug/L		0.50					
Bromodichloromethane	ND	ug/L		0.50					
Bromoform	ND	ug/L		0.50					
Bromomethane	ND	ug/L		0.50					
Carbon disulfide	ND	ug/L		0.50					
Carbon tetrachloride	ND	ug/L		0.50					
Chlorobenzene	ND	ug/L		0.50					
Chlorodibromomethane	ND	ug/L		0.50					
Chloroethane	ND	ug/L		0.50					
2-Chloroethyl vinyl ether	ND	ug/L		1.0					
Chloroform	ND	ug/L		0.50					
Chloromethane	ND	ug/L		0.50					
2-Chlorotoluene	ND	ug/L		0.50					
4-Chlorotoluene	ND	ug/L		0.50					
1,2-Dibromoethane	ND	ug/L		0.50					
Dibromomethane	ND	ug/L		0.50					
1,2-Dichlorobenzene	ND	ug/L		0.50					
1,3-Dichlorobenzene	ND	ug/L		0.50					
1,4-Dichlorobenzene	ND	ug/L		0.50					
Dichlorodifluoromethane	ND	ug/L		0.50					
1,1-Dichloroethane	ND	ug/L		0.50					
1,2-Dichloroethane	ND	ug/L		0.50					
1,1-Dichloroethene	ND	ug/L		0.50					
cis-1,2-Dichloroethene	ND	ug/L		0.50					
trans-1,2-Dichloroethene	ND	ug/L		0.50					
1,2-Dichloropropane	ND	ug/L		0.50					
1,3-Dichloropropane	ND	ug/L		0.50					
2,2-Dichloropropane	ND	ug/L		0.50					
1,1-Dichloropropene	ND	ug/L		0.50					
cis-1,3-Dichloropropene	ND	ug/L		0.30					
trans-1,3-Dichloropropene	ND	ug/L		0.30					
Ethylbenzene	ND	ug/L		0.50					
Methyl tert-butyl ether (MTBE)	ND	ug/L		0.50					
Methyl ethyl ketone	ND	ug/L		20					
Methyl isobutyl ketone	ND	ug/L		20					
Methylene chloride	ND	ug/L		0.50					
Naphthalene	ND	ug/L		0.50					
Styrene	ND	ug/L		0.50					
Tetrachloroethene	ND	ug/L		0.50					

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170217005 LFH-1 CO-0121724

**Report Date:** 03/02/17  
**Work Order:** C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
<b>Method: E624</b> <span style="float: right;">Batch: R275391</span>										
<b>Lab ID:</b> blk022417	Method Blank		Run: 5971A.I_170224A				02/24/17 11:30			
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50							
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50							
Toluene	ND	ug/L	0.50							
Trichloroethene	ND	ug/L	0.50							
1,1,1-Trichloroethane	ND	ug/L	0.50							
1,1,2-Trichloroethane	ND	ug/L	0.50							
Trichlorofluoromethane	ND	ug/L	0.50							
1,2,3-Trichloropropane	ND	ug/L	0.50							
Vinyl Acetate	ND	ug/L	1.0							
Vinyl chloride	ND	ug/L	0.40							
m+p-Xylenes	ND	ug/L	0.50							
o-Xylene	ND	ug/L	0.50							
Xylenes, Total	ND	ug/L	0.50							
Surr: 1,2-Dichloroethane-d4			0.50	74	71	139				
Surr: p-Bromofluorobenzene			0.50	90	80	127				
Surr: Toluene-d8			0.50	94	80	123				
<b>Lab ID: b17021110-001bms</b> <span style="float: right;">Sample Matrix Spike</span> <span style="float: right;">Run: 5971A.I_170224A</span> <span style="float: right;">02/24/17 20:47</span>										
Acrolein	ND	ug/L	20	0	16	233			S 1	
Acrylonitrile	48.8	ug/L	20	98	76	127				
2-Chloroethyl vinyl ether	3.44	ug/L	1.0	69	36	144				
Surr: 1,2-Dichloroethane-d4			0.50	80	71	139				
Surr: p-Bromofluorobenzene			0.50	95	80	127				
Surr: Toluene-d8			0.50	100	80	123				
- 1 = This is a known very reactive compound. The recovery of this compound was normal in the Laboratory Control Sample (LCS). The compound appears to have reacted with the sample matrix.										
<b>Lab ID: b17021110-001bmsd</b> <span style="float: right;">Sample Matrix Spike Duplicate</span> <span style="float: right;">Run: 5971A.I_170224A</span> <span style="float: right;">02/24/17 21:16</span>										
Acrolein	ND	ug/L	20	0	16	233			20 S 1	
Acrylonitrile	48.8	ug/L	20	98	76	127	0.0	20		
2-Chloroethyl vinyl ether	3.66	ug/L	1.0	73	36	144	6.1	20		
Surr: 1,2-Dichloroethane-d4			0.50	81	71	139				
Surr: p-Bromofluorobenzene			0.50	96	80	127				
Surr: Toluene-d8			0.50	99	80	123				
- 1 = This is a known very reactive compound. The recovery of this compound was normal in the Laboratory Control Sample (LCS). The compound appears to have reacted with the sample matrix.										
<b>Lab ID: b17021110-001bms</b> <span style="float: right;">Sample Matrix Spike</span> <span style="float: right;">Run: 5971A.I_170224A</span> <span style="float: right;">02/24/17 18:21</span>										
Acetone	40.4	ug/L	20	81	55	144				
Acetonitrile	66.0	ug/L	20	132	54	142				
Benzene	4.60	ug/L	0.50	92	73	122				
Bromobenzene	4.60	ug/L	0.50	92	74	129				
Bromochloromethane	4.56	ug/L	0.50	91	66	120				
Bromodichloromethane	4.36	ug/L	0.50	87	74	128				
Bromoform	4.40	ug/L	0.50	88	66	128				
Bromomethane	5.88	ug/L	0.50	118	51	123				

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170217005 LFH-1 CO-0121724

**Report Date:** 03/02/17  
**Work Order:** C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E624</b>							<b>Batch: R275391</b>		
<b>Lab ID: b17021110-001bms</b>	<b>Sample Matrix Spike</b>		<b>Run: 5971A.I_170224A</b>				<b>02/24/17 18:21</b>		
Carbon disulfide	5.12	ug/L	0.50	102	46	145			
Carbon tetrachloride	3.59	ug/L	0.50	72	75	125			S
Chlorobenzene	4.52	ug/L	0.50	90	80	123			
Chlorodibromomethane	4.52	ug/L	0.50	90	74	125			
Chloroethane	5.40	ug/L	0.50	108	59	142			
Chloroform	4.68	ug/L	0.50	82	68	124			
Chloromethane	4.64	ug/L	0.50	93	53	146			
2-Chlorotoluene	4.88	ug/L	0.50	98	75	131			
4-Chlorotoluene	4.68	ug/L	0.50	94	74	129			
1,2-Dibromoethane	4.16	ug/L	0.50	83	76	124			
Dibromomethane	4.64	ug/L	0.50	93	77	125			
1,2-Dichlorobenzene	4.64	ug/L	0.50	93	74	124			
1,3-Dichlorobenzene	4.88	ug/L	0.50	98	77	122			
1,4-Dichlorobenzene	4.76	ug/L	0.50	91	76	126			
Dichlorodifluoromethane	4.32	ug/L	0.50	86	56	146			
1,1-Dichloroethane	4.24	ug/L	0.50	85	74	133			
1,2-Dichloroethane	3.48	ug/L	0.50	70	75	129			S
1,1-Dichloroethene	4.12	ug/L	0.50	82	74	132			
cis-1,2-Dichloroethene	4.48	ug/L	0.50	90	81	122			
trans-1,2-Dichloroethene	4.64	ug/L	0.50	93	79	143			
1,2-Dichloropropane	4.92	ug/L	0.50	98	75	126			
1,3-Dichloropropane	4.24	ug/L	0.50	85	71	136			
2,2-Dichloropropane	3.60	ug/L	0.50	72	68	142			
1,1-Dichloropropene	4.04	ug/L	0.50	81	70	131			
cis-1,3-Dichloropropene	4.08	ug/L	0.50	82	74	135			
trans-1,3-Dichloropropene	3.97	ug/L	0.50	79	76	149			
Ethylbenzene	4.64	ug/L	0.50	93	72	130			
Methyl tert-butyl ether (MTBE)	3.63	ug/L	0.50	73	72	120			
Methyl ethyl ketone	44.4	ug/L	20	89	45	130			
Methyl isobutyl ketone	51.2	ug/L	20	102	58	135			
Methylene chloride	5.44	ug/L	0.50	109	66	142			
Naphthalene	4.84	ug/L	0.50	97	69	124			
Styrene	4.56	ug/L	0.50	91	80	124			
Tetrachloroethene	4.44	ug/L	0.50	89	72	131			
1,1,1,2-Tetrachloroethane	3.95	ug/L	0.50	79	78	124			
1,1,2,2-Tetrachloroethane	4.88	ug/L	0.50	98	68	137			
Toluene	4.88	ug/L	0.50	98	72	135			
Trichloroethene	4.56	ug/L	0.50	91	85	126			
1,1,1-Trichloroethane	3.51	ug/L	0.50	70	63	120			
1,1,2-Trichloroethane	4.52	ug/L	0.50	90	78	124			
Trichlorofluoromethane	3.29	ug/L	0.50	66	72	120			S
1,2,3-Trichloropropane	3.90	ug/L	0.50	78	64	138			
Vinyl Acetate	4.00	ug/L	1.0	80	31	124			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc  
Project: 170217005 LFH-1 CO-0121724

Report Date: 03/02/17  
Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E624</b>									
Batch: R275391									
<b>Lab ID:</b> b17021110-001bms	<b>Sample Matrix Spike</b>			<b>Run: 5971A.I_170224A</b>			<b>02/24/17 18:21</b>		
Vinyl chloride	5.12	ug/L	0.50	102	58	140			
m+p-Xylenes	9.32	ug/L	0.50	93	67	139			
o-Xylene	4.44	ug/L	0.50	89	74	135			
Xylenes, Total	13.8	ug/L	0.50	92	70	137			
Surr: 1,2-Dichloroethane-d4			0.50	80	71	139			
Surr: p-Bromofluorobenzene			0.50	94	80	127			
Surr: Toluene-d8			0.50	101	80	123			
<b>Lab ID:</b> b17021110-001bmsd	<b>Sample Matrix Spike Duplicate</b>			<b>Run: 5971A.I_170224A</b>			<b>02/24/17 18:50</b>		
Acetone	44.0	ug/L	20	88	55	144	8.5	20	
Acetonitrile	65.6	ug/L	20	131	54	142	0.6	20	
Benzene	5.04	ug/L	0.50	101	73	122	9.1	20	
Bromobenzene	4.96	ug/L	0.50	99	74	129	7.5	20	
Bromochloromethane	4.80	ug/L	0.50	96	68	120	5.1	20	
Bromodichloromethane	4.60	ug/L	0.50	92	74	128	5.4	20	
Bromoform	4.80	ug/L	0.50	96	66	128	8.7	20	
Bromomethane	6.00	ug/L	0.50	120	51	123	2.0	20	
Carbon disulfide	5.20	ug/L	0.50	104	46	145	1.6	20	
Carbon tetrachloride	3.97	ug/L	0.50	79	75	125	10	20	
Chlorobenzene	4.88	ug/L	0.50	98	80	123	7.7	20	
Chlorodibromomethane	4.76	ug/L	0.50	95	74	125	5.2	20	
Chloroethane	5.32	ug/L	0.50	106	59	142	1.5	20	
Chloroform	4.96	ug/L	0.50	87	68	124	5.8	20	
Chloromethane	4.88	ug/L	0.50	98	53	146	5.0	20	
2-Chlorotoluene	5.20	ug/L	0.50	104	75	131	6.3	20	
4-Chlorotoluene	5.04	ug/L	0.50	101	74	129	7.4	20	
1,2-Dibromoethane	4.52	ug/L	0.50	90	76	124	8.3	20	
Dibromomethane	4.88	ug/L	0.50	98	77	125	5.0	20	
1,2-Dichlorobenzene	5.04	ug/L	0.50	101	74	124	8.3	20	
1,3-Dichlorobenzene	5.20	ug/L	0.50	104	77	122	6.3	20	
1,4-Dichlorobenzene	5.12	ug/L	0.50	98	76	126	7.3	20	
Dichlorodifluoromethane	4.36	ug/L	0.50	87	56	146	0.9	20	
1,1-Dichloroethane	4.68	ug/L	0.50	94	74	133	9.9	20	
1,2-Dichloroethane	3.76	ug/L	0.50	75	75	129	7.8	20	
1,1-Dichloroethene	4.44	ug/L	0.50	89	74	132	7.5	20	
cis-1,2-Dichloroethene	4.88	ug/L	0.50	98	81	122	8.5	20	
trans-1,2-Dichloroethene	5.12	ug/L	0.50	102	79	143	9.8	20	
1,2-Dichloropropane	5.24	ug/L	0.50	105	75	126	6.3	20	
1,3-Dichloropropane	4.64	ug/L	0.50	93	71	136	9.0	20	
2,2-Dichloropropane	3.96	ug/L	0.50	79	68	142	9.6	20	
1,1-Dichloropropene	4.44	ug/L	0.50	89	70	131	9.4	20	
cis-1,3-Dichloropropene	4.40	ug/L	0.50	88	74	135	7.5	20	
trans-1,3-Dichloropropene	4.24	ug/L	0.50	85	76	149	6.6	20	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170217005 LFH-1 CO-0121724

**Report Date:** 03/02/17  
**Work Order:** C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E624</b>							<b>Batch: R275391</b>		
<b>Lab ID:</b> b17021110-001bmsd	<b>Sample Matrix Spike Duplicate</b>			<b>Run: 5971A.L_170224A</b>			<b>02/24/17 18:50</b>		
Ethylbenzene	5.00	ug/L	0.50	100	72	130	7.5	20	
Methyl tert-butyl ether (MTBE)	3.83	ug/L	0.50	77	72	120	5.5	20	
Methyl ethyl ketone	46.0	ug/L	20	92	45	130	3.5	20	
Methyl isobutyl ketone	51.2	ug/L	20	102	58	135	0.0	20	
Methylene chloride	5.72	ug/L	0.50	114	66	142	5.0	20	
Naphthalene	5.56	ug/L	0.50	111	69	124	14	20	
Styrene	4.84	ug/L	0.50	97	80	124	6.0	20	
Tetrachloroethene	4.72	ug/L	0.50	94	72	131	6.1	20	
1,1,1,2-Tetrachloroethane	4.20	ug/L	0.50	84	78	124	6.1	20	
1,1,2,2-Tetrachloroethane	5.20	ug/L	0.50	104	68	137	6.3	20	
Toluene	5.12	ug/L	0.50	102	72	135	4.8	20	
Trichloroethene	4.80	ug/L	0.50	96	85	126	5.1	20	
1,1,1-Trichloroethane	3.94	ug/L	0.50	79	63	120	12	20	
1,1,2-Trichloroethane	4.76	ug/L	0.50	95	78	124	5.2	20	
Trichlorofluoromethane	3.36	ug/L	0.50	67	72	120	2.3	20	S
1,2,3-Trichloropropane	4.20	ug/L	0.50	84	64	138	7.4	20	
Vinyl Acetate	4.20	ug/L	1.0	84	31	124	4.9	20	
Vinyl chloride	5.08	ug/L	0.50	102	58	140	0.8	20	
m+p-Xylenes	9.92	ug/L	0.50	99	67	139	6.2	20	
o-Xylene	4.80	ug/L	0.50	96	74	135	7.8	20	
Xylenes, Total	14.7	ug/L	0.50	98	70	137			
Surr: 1,2-Dichloroethane-d4			0.50	81	71	139			
Surr: p-Bromofluorobenzene			0.50	94	80	127			
Surr: Toluene-d8			0.50	100	80	123			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 03/02/17

Project: 170217005 LFH-1 CO-0121724

Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625									Batch: 107004
Lab ID: MB-107004	Method Blank						Run: SV5973N2.I_170227B		02/27/17 18:24
Acenaphthene	ND	ug/L							10
Acenaphthylene	ND	ug/L							10
Anthracene	ND	ug/L							10
Azobenzene	ND	ug/L							10
Benzo(a)anthracene	ND	ug/L							10
Benzo(a)pyrene	ND	ug/L							10
Benzo(b)fluoranthene	ND	ug/L							10
Benzo(g,h,i)perylene	ND	ug/L							10
Benzo(k)fluoranthene	ND	ug/L							10
4-Bromophenyl phenyl ether	ND	ug/L							10
Butylbenzylphthalate	ND	ug/L							10
4-Chloro-3-methylphenol	ND	ug/L							10
bis(-2-chloroethoxy)Methane	ND	ug/L							10
bis(-2-chloroethyl)Ether	ND	ug/L							10
bis(2-chloroisopropyl)Ether	ND	ug/L							10
2-Chloronaphthalene	ND	ug/L							10
2-Chlorophenol	ND	ug/L							10
4-Chlorophenyl phenyl ether	ND	ug/L							10
Chrysene	ND	ug/L							10
Diethyl phthalate	ND	ug/L							10
Di-n-butyl phthalate	ND	ug/L							10
1,2-Dichlorobenzene	ND	ug/L							10
1,3-Dichlorobenzene	ND	ug/L							10
1,4-Dichlorobenzene	ND	ug/L							10
3,3'-Dichlorobenzidine	ND	ug/L							10
2,4-Dichlorophenol	ND	ug/L							10
Dimethyl phthalate	ND	ug/L							10
Di-n-octyl phthalate	ND	ug/L							10
Dibenzo(a,h)anthracene	ND	ug/L							10
2,4-Dimethylphenol	ND	ug/L							10
4,6-Dinitro-2-methylphenol	ND	ug/L							50
2,4-Dinitrophenol	ND	ug/L							50
2,4-Dinitrotoluene	ND	ug/L							10
2,6-Dinitrotoluene	ND	ug/L							10
bis(2-ethylhexyl)Phthalate	ND	ug/L							10
Fluoranthene	ND	ug/L							10
Fluorene	ND	ug/L							10
Hexachlorobenzene	ND	ug/L							10
Hexachlorobutadiene	ND	ug/L							10
Hexachlorocyclopentadiene	ND	ug/L							10
Hexachloroethane	ND	ug/L							10
Indeno(1,2,3-cd)pyrene	ND	ug/L							10
Isophorone	ND	ug/L							10

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc  
Project: 170217005 LFH-1 CO-0121724

Report Date: 03/02/17  
Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E625</b>							<b>Batch: 107004</b>		
<b>Lab ID: MB-107004</b>	<b>Method Blank</b>		<b>Run: SV5973N2.I_170227B</b>				<b>02/27/17 18:24</b>		
n-Nitrosodimethylamine	ND	ug/L	10						
n-Nitroso-di-n-propylamine	ND	ug/L	10						
n-Nitrosodiphenylamine	ND	ug/L	10						
2-Nitrophenol	ND	ug/L	10						
4-Nitrophenol	ND	ug/L	50						
Naphthalene	ND	ug/L	10						
Nitrobenzene	ND	ug/L	10						
Pentachlorophenol	ND	ug/L	50						
Phenanthrene	ND	ug/L	10						
Phenol	ND	ug/L	10						
Pyrene	ND	ug/L	10						
1,2,4-Trichlorobenzene	ND	ug/L	10						
2,4,6-Trichlorophenol	ND	ug/L	10						
Surr: 2-Fluorobiphenyl			10	55	28	107			
Surr: 2-Fluorophenol			10	36	20	56			
Surr: Nitrobenzene-d5			10	58	32	94			
Surr: Phenol-d5			10	35	19	45			
Surr: Terphenyl-d14			10	77	32	122			
Surr: 2,4,6-Tribromophenol			10	58	21	130			
<b>Lab ID: LCS-107004</b>	<b>Laboratory Control Sample</b>		<b>Run: SV5973N2.I_170227B</b>				<b>02/27/17 18:55</b>		
Acenaphthene	81.2	ug/L	10	81	58	99			
Acenaphthylene	76.5	ug/L	10	77	57	96			
Anthracene	79.5	ug/L	10	80	60	107			
Azobenzene	79.3	ug/L	10	79	56	100			
Benzo(a)anthracene	84.1	ug/L	10	84	62	114			
Benzo(a)pyrene	80.1	ug/L	10	80	62	108			
Benzo(b)fluoranthene	88.6	ug/L	10	89	48	127			
Benzo(g,h,i)perylene	81.6	ug/L	10	82	82	121			
Benzo(k)fluoranthene	79.2	ug/L	10	79	55	111			
4-Bromophenyl phenyl ether	83.0	ug/L	10	83	58	105			
Butylbenzylphthalate	91.6	ug/L	10	92	60	113			
4-Chloro-3-methylphenol	65.7	ug/L	10	66	53	92			
bis(-2-chloroethoxy)Methane	73.9	ug/L	10	74	50	92			
bis(-2-chloroethyl)Ether	63.4	ug/L	10	63	44	82			
bis(2-chloroisopropyl)Ether	61.2	ug/L	10	61	56	87			
2-Chloronaphthalene	74.9	ug/L	10	75	56	95			
2-Chlorophenol	60.1	ug/L	10	60	47	76			
4-Chlorophenyl phenyl ether	75.8	ug/L	10	76	58	99			
Chrysene	81.9	ug/L	10	82	63	106			
Diethyl phthalate	78.6	ug/L	10	79	58	103			
Di-n-butyl phthalate	87.6	ug/L	10	88	61	110			
1,2-Dichlorobenzene	81.5	ug/L	10	82	43	81			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 03/02/17

Project: 170217005 LFH-1 CO-0121724

Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625							Batch: 107004		
Lab ID: LCS-107004	Laboratory Control Sample			Run: SV5973N2.I_170227B			02/27/17 18:55		
1,3-Dichlorobenzene	60.2	ug/L	10	60	41	79			
1,4-Dichlorobenzene	61.4	ug/L	10	61	42	79			
3,3'-Dichlorobenzidine	66.6	ug/L	10	69	51	93			
2,4-Dichlorophenol	64.7	ug/L	10	65	49	90			
Dimethyl phthalate	76.4	ug/L	10	76	58	104			
Di-n-octyl phthalate	88.3	ug/L	10	88	56	110			
Dibenzo(a,h)anthracene	80.4	ug/L	10	80	61	111			
2,4-Dimethylphenol	61.8	ug/L	10	62	45	89			
4,6-Dinitro-2-methylphenol	48.2	ug/L	50	48	37	105			
2,4-Dinitrophenol	39.7	ug/L	50	40	27	81			
2,4-Dinitrotoluene	87.7	ug/L	10	88	63	110			
2,6-Dinitrotoluene	75.5	ug/L	10	76	60	107			
bis(2-ethylhexyl)Phthalate	88.6	ug/L	10	89	56	108			
Fluoranthene	63.8	ug/L	10	84	63	110			
Fluorene	77.4	ug/L	10	77	60	99			
Hexachlorobenzene	76.2	ug/L	10	78	57	103			
Hexachlorobutadiene	67.5	ug/L	10	67	39	83			
Hexachlorocyclopentadiene	68.4	ug/L	10	68	39	91			
Hexachloroethane	59.6	ug/L	10	60	37	75			
Indeno(1,2,3-cd)pyrene	82.0	ug/L	10	82	59	109			
Isophorone	67.1	ug/L	10	67	42	102			
n-Nitrosodimethylamine	36.9	ug/L	10	37	20	45			
n-Nitroso-di-n-propylamine	71.5	ug/L	10	71	49	98			
n-Nitrosodiphenylamine	90.0	ug/L	10	90	61	108			
2-Nitrophenol	68.0	ug/L	10	68	51	96			
4-Nitrophenol	16.3	ug/L	50	18	15	36			
Naphthalene	71.6	ug/L	10	72	48	96			
Nitrobenzene	65.0	ug/L	10	65	51	91			
Pentachlorophenol	70.6	ug/L	50	71	53	109			
Phenanthrene	80.5	ug/L	10	81	58	104			
Phenol	35.4	ug/L	10	35	27	45			
Pyrene	89.3	ug/L	10	89	64	108			
1,2,4-Trichlorobenzene	67.3	ug/L	10	67	49	85			
2,4,6-Trichlorophenol	64.9	ug/L	10	65	47	99			
Surr: 2-Fluorobiphenyl			10	63	28	107			
Surr: 2-Fluorophenol			10	35	20	56			
Surr: Nitrobenzene-d5			10	68	32	94			
Surr: Phenol-d5			10	42	19	45			
Surr: Terphenyl-d14			10	87	32	122			
Surr: 2,4,6-Tribromophenol			10	70	21	130			
Lab ID: B17021688-001CMS	Sample Matrix Spike			Run: SV5973N2.I_170227B			02/27/17 20:29		
Acenaphthene	86.4	ug/L	10	86	58	99			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.





# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc  
Project: 170217005 LFH-1 CO-0121724

Report Date: 03/02/17  
Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625							Batch: 107004		
Lab ID: B17021688-001CMS	Sample Matrix Spike			Run: SV5973N2.I_170227B			02/27/17 20:29		
Acenaphthylene	83.0	ug/L	10	83	57	96			
Anthracene	86.4	ug/L	10	86	60	107			
Azobenzene	84.3	ug/L	10	84	56	100			
Benzo(a)anthracene	90.3	ug/L	10	90	62	114			
Benzo(a)pyrene	80.9	ug/L	10	81	62	108			
Benzo(b)fluoranthene	80.4	ug/L	10	80	48	127			
Benzo(g,h,i)perylene	80.5	ug/L	10	81	62	121			
Benzo(k)fluoranthene	83.5	ug/L	10	83	55	111			
4-Bromophenyl phenyl ether	80.4	ug/L	10	80	58	105			
Butylbenzylphthalate	99.7	ug/L	10	100	60	113			
4-Chloro-3-methylphenol	77.0	ug/L	10	77	53	92			
bis(-2-chloroethoxy)Methane	77.3	ug/L	10	77	50	92			
bis(-2-chloroethyl)Ether	66.7	ug/L	10	67	44	82			
bis(2-chloroisopropyl)Ether	66.6	ug/L	10	67	56	87			
2-Chloronaphthalene	79.8	ug/L	10	80	56	95			
2-Chlorophenol	64.1	ug/L	10	64	47	76			
4-Chlorophenyl phenyl ether	84.5	ug/L	10	85	58	99			
Chrysene	85.9	ug/L	10	86	63	106			
Diethyl phthalate	85.4	ug/L	10	85	58	103			
Di-n-butyl phthalate	96.0	ug/L	10	96	61	110			
1,2-Dichlorobenzene	66.1	ug/L	10	66	43	81			
1,3-Dichlorobenzene	61.9	ug/L	10	62	41	79			
1,4-Dichlorobenzene	61.8	ug/L	10	62	42	79			
3,3'-Dichlorobenzidine	69.1	ug/L	10	69	51	93			
2,4-Dichlorophenol	68.4	ug/L	10	68	49	90			
Dimethyl phthalate	81.4	ug/L	10	81	58	104			
Di-n-octyl phthalate	90.6	ug/L	10	91	56	110			
Dibenzo(a,h)anthracene	80.0	ug/L	10	80	61	111			
2,4-Dimethylphenol	69.2	ug/L	10	69	45	87			
4,6-Dinitro-2-methylphenol	58.9	ug/L	50	59	37	105			
2,4-Dinitrophenol	54.8	ug/L	50	55	27	81			
2,4-Dinitrotoluene	82.5	ug/L	10	83	63	110			
2,6-Dinitrotoluene	80.8	ug/L	10	81	60	107			
bis(2-ethylhexyl)Phthalate	92.0	ug/L	10	92	56	108			
Fluoranthene	88.0	ug/L	10	88	63	110			
Fluorene	80.1	ug/L	10	80	60	99			
Hexachlorobenzene	82.5	ug/L	10	83	57	103			
Hexachlorobutadiene	69.0	ug/L	10	69	39	83			
Hexachlorocyclopentadiene	68.1	ug/L	10	68	39	91			
Hexachloroethane	65.6	ug/L	10	66	37	75			
Indeno(1,2,3-cd)pyrene	82.3	ug/L	10	82	59	109			
Isophorone	71.3	ug/L	10	71	42	102			
n-Nitrosodimethylamine	41.5	ug/L	10	41	20	45			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

## QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Colorado Analytical Laboratories Inc

**Report Date:** 03/02/17

**Project:** 170217005 LFH-1 CO-0121724

**Work Order:** C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E625</b>							Batch: 107004		
<b>Lab ID: B17021688-001CMS</b>	<b>Sample Matrix Spike</b>						<b>Run: SV5973N2.I_170227B</b>	02/27/17 20:29	
n-Nitroso-di-n-propylamine	76.9	ug/L	10	77	49	98			
n-Nitrosodiphenylamine	93.7	ug/L	10	94	61	108			
2-Nitrophenol	69.9	ug/L	10	70	51	96			
4-Nitrophenol	24.6	ug/L	50	25	15	36			
Naphthalene	76.0	ug/L	10	76	48	96			
Nitrobenzene	72.5	ug/L	10	73	51	91			
Pentachlorophenol	89.2	ug/L	50	89	53	109			
Phenanthrene	85.1	ug/L	10	85	58	104			
Phenol	36.7	ug/L	10	37	27	45			
Pyrene	88.8	ug/L	10	90	64	108			
1,2,4-Trichlorobenzene	70.9	ug/L	10	71	49	85			
2,4,6-Trichlorophenol	67.7	ug/L	10	68	47	99			
Surr: 2-Fluorobiphenyl			10	62	28	107			
Surr: 2-Fluorophenol			10	39	20	56			
Surr: Nitrobenzene-d5			10	72	32	94			
Surr: Phenol-d5			10	35	19	45			
Surr: Terphenyl-d14			10	87	32	122			
Surr: 2,4,6-Tribromophenol			10	75	21	130			
<b>Lab ID: B17021688-003CMS</b>							02/27/17 21:31		
<b>Sample Matrix Spike</b>						<b>Run: SV5973N2.I_170227B</b>			
Acenaphthene	89.8	ug/L	10	90	58	99			
Acenaphthylene	82.2	ug/L	10	82	57	96			
Anthracene	73.2	ug/L	10	73	60	107			
Azobenzene	80.2	ug/L	10	80	56	100			
Benzo(a)anthracene	85.1	ug/L	10	85	62	114			
Benzo(a)pyrene	77.0	ug/L	10	77	62	108			
Benzo(b)fluoranthene	73.3	ug/L	10	73	48	127			
Benzo(g,h,i)perylene	78.5	ug/L	10	79	62	121			
Benzo(k)fluoranthene	83.1	ug/L	10	83	55	111			
4-Bromophenyl phenyl ether	78.1	ug/L	10	78	58	105			
Butylbenzylphthalate	92.9	ug/L	10	93	60	113			
4-Chloro-3-methylphenol	69.5	ug/L	10	69	53	92			
bis(-2-chloroethoxy)Methane	69.6	ug/L	10	70	50	92			
bis(-2-chloroethyl)Ether	58.4	ug/L	10	58	44	82			
bis(2-chloroisopropyl)Ether	57.7	ug/L	10	58	56	87			
2-Chloronaphthalene	77.7	ug/L	10	78	56	95			
2-Chlorophenol	56.6	ug/L	10	57	47	76			
4-Chlorophenyl phenyl ether	82.9	ug/L	10	83	58	99			
Chrysene	82.0	ug/L	10	82	63	106			
Diethyl phthalate	80.2	ug/L	10	80	58	103			
Di-n-butyl phthalate	86.9	ug/L	10	87	61	110			
1,2-Dichlorobenzene	61.5	ug/L	10	62	43	81			
1,3-Dichlorobenzene	59.3	ug/L	10	59	41	79			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170217005 LFH-1 CO-0121724

**Report Date:** 03/02/17  
**Work Order:** C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E625</b>							<b>Batch: 107004</b>		
<b>Lab ID: B17021688-003CMS</b>	<b>Sample Matrix Spike</b>		<b>Run: SV5973N2.I_170227B</b>				<b>02/27/17 21:31</b>		
1,4-Dichlorobenzene	57.9	ug/L	10	58	42	79			
3,3'-Dichlorobenzidine	52.9	ug/L	10	53	51	93			
2,4-Dichlorophenol	61.5	ug/L	10	62	49	90			
Dimethyl phthalate	74.3	ug/L	10	74	58	104			
Di-n-octyl phthalate	82.5	ug/L	10	83	56	110			
Dibenzo(a,h)anthracene	75.9	ug/L	10	76	61	111			
2,4-Dimethylphenol	60.0	ug/L	10	60	45	87			
4,6-Dinitro-2-methylphenol	41.6	ug/L	50	42	37	105			
2,4-Dinitrophenol	30.1	ug/L	50	30	27	81			
2,4-Dinitrotoluene	86.9	ug/L	10	87	63	110			
2,6-Dinitrotoluene	75.9	ug/L	10	76	60	107			
bis(2-ethylhexyl)Phthalate	81.5	ug/L	10	82	56	108			
Fluoranthene	82.0	ug/L	10	82	63	110			
Fluorene	81.9	ug/L	10	82	60	99			
Hexachlorobenzene	75.8	ug/L	10	76	57	103			
Hexachlorobutadiene	69.3	ug/L	10	69	39	83			
Hexachlorocyclopentadiene	69.5	ug/L	10	70	39	91			
Hexachloroethane	57.7	ug/L	10	58	37	75			
Indeno(1,2,3-cd)pyrene	73.4	ug/L	10	73	59	109			
Isophorone	68.4	ug/L	10	68	42	102			
n-Nitrosodimethylamine	27.8	ug/L	10	28	20	45			
n-Nitroso-di-n-propylamine	68.7	ug/L	10	69	49	98			
n-Nitrosodiphenylamine	84.0	ug/L	10	84	61	108			
2-Nitrophenol	61.8	ug/L	10	62	51	96			
4-Nitrophenol	27.7	ug/L	50	28	15	36			
Naphthalene	72.4	ug/L	10	72	48	96			
Nitrobenzene	69.7	ug/L	10	70	51	91			
Pentachlorophenol	66.8	ug/L	50	67	53	109			
Phenanthrene	79.7	ug/L	10	80	58	104			
Phenol	33.9	ug/L	10	34	27	45			
Pyrene	81.2	ug/L	10	81	64	108			
1,2,4-Trichlorobenzene	71.3	ug/L	10	71	49	85			
2,4,6-Trichlorophenol	63.8	ug/L	10	64	47	99			
Surr: 2-Fluorobiphenyl			10	45	28	107			
Surr: 2-Fluorophenol			10	37	20	56			
Surr: Nitrobenzene-d5			10	62	32	94			
Surr: Phenol-d5			10	31	19	45			
Surr: Terphenyl-d14			10	64	32	122			
Surr: 2,4,6-Tribromophenol			10	55	21	130			
<b>Lab ID: MB-107004</b>	<b>Method Blank</b>		<b>Run: SV5973N2.I_170228A</b>				<b>02/28/17 12:11</b>		
Benzidine	ND	ug/L	10						

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



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## QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 03/02/17

Project: 170217005 LFH-1 CO-0121724

Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> E625									Batch: 107004
<b>Lab ID:</b> LCS-107004	Laboratory Control Sample								Run: SV5973N2.I_170228A 02/28/17 12:42
Benzidine	63.4	ug/L	10	63	10	100			
<b>Lab ID:</b> B17021688-001CMS	Sample Matrix Spike								Run: SV5973N2.I_170228A 02/28/17 14:16
Benzidine	25.8	ug/L	20	26	10	100			
<b>Lab ID:</b> B17021688-003CMS	Sample Matrix Spike								Run: SV5973N2.I_170228A 02/28/17 15:18
Benzidine	28.5	ug/L	20	28	10	100			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 03/02/17

Project: 170217005 LFH-1 CO-0121724

Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625							Analytical Run: R275528		
Lab ID: 27-Feb-17_CCV_2	Continuing Calibration Verification Standard						02/27/17 15:18		
Acenaphthene	75.7	ug/L	10	101	80	120			
Acenaphthylene	75.2	ug/L	10	100	80	120			
Anthracene	78.7	ug/L	10	105	80	120			
Azobenzene	79.8	ug/L	10	106	80	120			
Benzo(a)anthracene	78.0	ug/L	10	104	80	120			
Benzo(a)pyrene	78.0	ug/L	10	104	80	120			
Benzo(b)fluoranthene	78.6	ug/L	10	105	80	120			
Benzo(g,h,i)perylene	75.3	ug/L	10	100	80	120			
Benzo(k)fluoranthene	73.2	ug/L	10	98	80	120			
4-Bromophenyl phenyl ether	74.4	ug/L	10	99	80	120			
Butylbenzylphthalate	84.4	ug/L	10	113	80	120			
4-Chloro-3-methylphenol	77.2	ug/L	10	103	80	120			
bis(-2-chloroethoxy)Methane	79.4	ug/L	10	106	80	120			
bis(-2-chloroethyl)Ether	80.8	ug/L	10	108	80	120			
bis(2-chloroisopropyl)Ether	77.8	ug/L	10	104	80	120			
2-Chloronaphthalene	70.3	ug/L	10	94	80	120			
2-Chlorophenol	80.3	ug/L	10	107	80	120			
4-Chlorophenyl phenyl ether	72.9	ug/L	10	97	80	120			
Chrysene	75.0	ug/L	10	100	80	120			
Diethyl phthalate	75.7	ug/L	10	101	80	120			
Di-n-butyl phthalate	81.6	ug/L	10	109	80	120			
1,2-Dichlorobenzene	72.7	ug/L	10	97	80	120			
1,3-Dichlorobenzene	77.8	ug/L	10	104	80	120			
1,4-Dichlorobenzene	74.9	ug/L	10	100	80	120			
3,3'-Dichlorobenzidine	75.8	ug/L	10	101	80	120			
2,4-Dichlorophenol	74.8	ug/L	10	100	80	120			
Dimethyl phthalate	75.3	ug/L	10	100	80	120			
Di-n-octyl phthalate	83.5	ug/L	10	111	80	120			
Dibenzo(a,h)anthracene	74.8	ug/L	10	100	80	120			
2,4-Dimethylphenol	73.0	ug/L	10	97	80	120			
4,6-Dinitro-2-methylphenol	71.3	ug/L	50	95	80	120			
2,4-Dinitrophenol	69.4	ug/L	50	93	80	120			
2,4-Dinitrotoluene	79.4	ug/L	10	106	80	120			
2,6-Dinitrotoluene	78.1	ug/L	10	104	80	120			
bis(2-ethylhexyl)Phthalate	84.4	ug/L	10	112	80	120			
Fluoranthene	76.0	ug/L	10	101	80	120			
Fluorene	77.8	ug/L	10	104	80	120			
Hexachlorobenzene	73.8	ug/L	10	98	80	120			
Hexachlorobutadiene	71.9	ug/L	10	96	80	120			
Hexachlorocyclopentadiene	73.1	ug/L	10	97	80	120			
Hexachloroethane	77.6	ug/L	10	103	80	120			
Indeno(1,2,3-cd)pyrene	75.6	ug/L	10	101	80	120			
Isophorone	78.1	ug/L	10	104	80	120			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 03/02/17

Project: 170217005 LFH-1 CO-0121724

Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E625</b>							Analytical Run: R275528		
<b>Lab ID: 27-Feb-17_CCV_2</b>	Continuing Calibration Verification Standard						02/27/17 15:18		
n-Nitrosodimethylamine	75.3	ug/L	10	100	80	120			
n-Nitroso-di-n-propylamine	77.8	ug/L	10	104	80	120			
n-Nitrosodiphenylamine	78.9	ug/L	10	105	80	120			
2-Nitrophenol	75.8	ug/L	10	101	80	120			
4-Nitrophenol	69.6	ug/L	50	93	80	120			
Naphthalene	79.8	ug/L	10	106	80	120			
Nitrobenzene	76.8	ug/L	10	102	80	120			
Pentachlorophenol	73.3	ug/L	50	98	80	120			
Phenanthrene	74.0	ug/L	10	99	80	120			
Phenol	79.2	ug/L	10	106	80	120			
Pyrene	75.2	ug/L	10	100	80	120			
1,2,4-Trichlorobenzene	72.8	ug/L	10	97	80	120			
2,4,6-Trichlorophenol	73.6	ug/L	10	98	80	120			
Surr: 2-Fluorobiphenyl			10	100	80	120			
Surr: 2-Fluorophenol			10	113	80	120			
Surr: Nitrobenzene-d5			10	105	80	120			
Surr: Phenol-d5			10	121	80	120			S
Surr: Terphenyl-d14			10	101	80	120			
Surr: 2,4,6-Tribromophenol			10	102	80	120			

<b>Method: E625</b>							Analytical Run: R275577		
<b>Lab ID: 28-Feb-17_CCV_2</b>	Continuing Calibration Verification Standard						02/28/17 11:39		
Benzidine	89.5	ug/L	10	119	80	120			

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Colorado Analytical Laboratories Inc

**Project:** 170217005 LFH-1 CO-0121724

**Report Date:** 03/02/17

**Work Order:** C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> SW8260M									Analytical Run: 107003
<b>Lab ID:</b> CCV-107003	Continuing Calibration Verification Standard								02/27/17 08:30
1,4-Dioxane	105	ug/L	1.0	105	80	120			
<b>Method:</b> SW8260M									Batch: 107003
<b>Lab ID:</b> LCS-107003	Laboratory Control Sample								Run: VOA5973A.I_170227A
1,4-Dioxane	106	ug/L	1.0	106	70	130			02/27/17 09:22
<b>Lab ID:</b> MB-107003	Method Blank								Run: VOA5973A.I_170227A
1,4-Dioxane	ND	ug/L	1.0						02/27/17 09:44
<b>Lab ID:</b> C17020566-001BMS	Sample Matrix Spike								Run: VOA5973A.I_170227A
1,4-Dioxane	200	ug/L	2.0	100	70	130			02/27/17 11:37
<b>Lab ID:</b> C17020566-001BMSD	Sample Matrix Spike Duplicate								Run: VOA5973A.I_170227A
1,4-Dioxane	206	ug/L	2.0	103	70	130	3.0		02/27/17 11:59

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# Work Order Receipt Checklist

Colorado Analytical Laboratories Inc

C17020566

Login completed by: Dorian Quis

Date Received: 2/21/2017

Reviewed by: Kasey Vidick

Received by: dcq

Reviewed Date: 2/21/2017

Carrier name: Ground

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on all sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	6.8°C Blue ice		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>

## Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as -dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

## Contact and Corrective Action Comments:

None







Colorado Department  
of Public Health  
and Environment

**Inorganic Chemicals Certified Laboratory Report Form**  
**WQCD - Drinking Water CAS**  
**4300 Cherry Creek Drive South, Denver, CO 80246-1530**  
**Fax: (303) 758-1398; cdphe.drinkingwater@state.co.us**

Revised 6/13/2014

**IOC**

<b>Section I (Supplied or Completed by Public Water System)</b>		<b>Section II (Supplied or Completed by Certified Laboratory)</b>	
<b>Public Water System Information</b>		<b>Certified Laboratory Information</b>	
PWSID#: CO0121724	Laboratory ID: CO 0015	Laboratory Name: Colorado Analytical Laboratory	
System Name: Sterling Ranch MD	Phone #: 719-227-0072	Contact Person: Customer Service	Phone: 303-659-2313
Contact Person: Mark Volle	Do Samples Need to be Compositied BY THE LAB? <input type="checkbox"/>	Comments:	

<b>Section III (Supplied or Completed by Public Water System)</b>			
<b>Sample Date:</b> 3/23/17	<b>Collector:</b> Stephanie Schw	<b>Facility ID (On Schedule):</b> New Well	<b>Sample Pt ID (On Schedule):</b> New Well
<b>Section IV Inorganic Chemicals (Completed by Certified Laboratory)</b>			
<b>Lab Receipt Date</b> 3/24/17	<b>Lab Analysis Date</b> 3/24/17	<b>Lab Sample ID</b> 170324007-01	<b>Analyte Name</b> Fluoride
		<b>CAS No.</b> 7681-49-4	<b>Analytical Method</b> EPA 300.0
		<b>MCL (mg/L)</b> 4	<b>Lab MRL (mg/L)</b> 0.09
			<b>Result (mg/L)</b> 1.22

NT: Not Tested  
 Lab MRL: Laboratory Minimum Reporting Level  
 BDL: Below Laboratory MRL. A less than (<) may also used.

mg/L: Milligrams per Liter  
 MCL: Maximum Contaminant Level

4/21/17  
 170324007-01  
 1/1  
 N







Colorado Department  
of Public Health  
and Environment

**Inorganic Chemicals Certified Laboratory Report Form**  
**WQCD - Drinking Water CAS**  
**Submit Online at <http://www.wqcdcompliance.com/login>**

Revised 4/13/2015

**IOC**

Section I (Supplied or Completed by Public Water System)		Section II (Supplied or Completed by Certified Laboratory)	
Public Water System Information		Certified Laboratory Information	
PWSID#: CO0121724		Laboratory ID: CO 0015	
System Name: Sterling Ranch MD		Laboratory Name: Colorado Analytical Laboratory	
Contact Person: Mark Volle		Contact Person: Customer Service Phone: 303-659-2313	
Comments:		Comments:	
Do Samples Need to be Compositied BY THE LAB? <input type="checkbox"/>			

Section III (Supplied or Completed by Public Water System)			
Sample Date: 3/23/17	Collector: Stephanie Schw	Facility ID (On Schedule): New Well	Sample Pt ID (On Schedule): New Well
Section IV Inorganic Chemicals (Completed by Certified Laboratory)			

Lab Receipt Date	Lab Analysis Date	Lab Sample ID	Analyte Name	CAS No.	Analytical Method	MCL (mg/L)	Lab MRL (mg/L)	Result (mg/L)
3/24/17	3/29/17	170324007-01A	Antimony	7740-36-0	EPA 200.8	0.006	0.001	BDL
3/24/17	3/29/17	170324007-01A	Arsenic	7440-38-2	EPA 200.8	0.01	0.001	0.002
3/24/17	3/29/17	170324007-01A	Barium	7440-39-3	EPA 200.8	2	0.001	0.003
3/24/17	3/29/17	170324007-01A	Beryllium	7440-41-7	EPA 200.8	0.004	0.001	BDL
3/24/17	3/29/17	170324007-01A	Cadmium	7440-43-9	EPA 200.8	0.005	0.001	BDL
3/24/17	3/29/17	170324007-01A	Chromium	7440-47-3	EPA 200.8	0.1	0.001	BDL
3/24/17	3/29/17	170324007-01A	Mercury	7439-97-6	EPA 200.8	0.002	0.0001	BDL
3/24/17	3/29/17	170324007-01A	Nickel	7440-02-0	EPA 200.8	N/A	0.001	0.001
3/24/17	3/29/17	170324007-01A	Selenium	7782-49-2	EPA 200.8	0.05	0.001	BDL
3/24/17	3/30/17	170324007-01A	Sodium	7440-23-5	EPA 200.7	N/A	0.1	52.8
3/24/17	3/29/17	170324007-01A	Thallium	7440-28-0	EPA 200.8	0.002	0.001	BDL

NT: Not Tested  
Lab MRL: Laboratory Minimum Reporting Level  
BDL: Below Laboratory MRL. A less than (<) may also used.

mg/L: Milligrams per Liter  
MCL: Maximum Contaminant Level

4/21/17  
170324007-01A  
1/1  
N



Drinking Water Chain of Custody

page 1 of 2

Report To Information		Bill To Information (if different from report to)		State Form / Project Information	
Company Name: <u>JDS-Hydro Consultants</u>		Company Name: <u>SR WATER</u>		PWSID: <u>CO 0121724</u>	
Contact Name: <u>Mark Volle</u>		Contact Name: <u>JIM MORLEY</u>		System Name: <u>STEERING BANK MD</u>	
Address: <u>545 E. Pikes Peak Ave</u>		Address: <u>20 BOWDER CRESCENT</u>		Address: <u>20 BOWDER CRESCENT</u>	
City: <u>CO Springs</u>		City: <u>CO Springs</u>		City: <u>CO Springs</u>	
State: <u>CO</u>		State: <u>CO</u>		State: <u>CO</u>	
Zip: <u>80903</u>		Zip: <u>80905</u>		Zip: <u>80905</u>	
Phone: <u>719-207-0079</u>		Phone: <u>303-659-2313</u>		Phone: <u>303-659-2315</u>	
Fax: <u></u>		Fax: <u></u>		Fax: <u></u>	
Email: <u>mvolle@jds-hydro.com</u>		Email: <u>jmorley@srwater.com</u>		Email: <u></u>	
Sampler Name: <u>Stephanie Schwenke</u>		PO No.: <u></u>		Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

CAL Task No.		PHASE I, II, V Drinking Water Analyses (check analysis)														Subcontract Analyses																
170324007																																
ARF																																
Date	Time	Client Sample ID / EP Code	No. of Containers	Residual Chlorine (mg/L) P/A Samples Only	Total Coliform P/A	504.1 EDB/BCP	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 THMs	552.2 HAA5s	Lcad/Copper	Nitrate	Nitrite	Fluoride	Inorganics	Alk/Lang. Index	TOC, DOC (Circle)	SVA, UV 254 (Circle)	605-50C	Gross Alpha/Beta	Radium 226	Radium 228	Radon	Uranium		
3-23	7:55	#1	1					X					X																			
	7:57	#2	1																													
	8:11	#3	2		X					X																						
	7:52	#4	1		X																											
	7:52am	#5	1																													
	7:53	#6	3																													
	7:58	#7	2																													
	7:58	#8 - no H2O included in	2																													
	7:59	#9	1																													
	8:02	#10	1																													

Instructions: No H<sub>2</sub>SO<sub>4</sub> preservative was included with the bottle shipment. Please preserve Diquat Sample #8 as soon as you receive the shipment.

Relinquished By: [Signature] Date/Time: 3-23 11:30am

Received By: [Signature] Date/Time: 3/24/17 10:10

Delivered Via: Fed Ex C/S Charge:  Temp: 3.3 °C/ice  Sample Pres. Yes  No  Date/Time:

Relinquished By:  Date/Time:

Received By:  Date/Time:



Drinking Water Chain of Custody

page 2 of 2

Report To Information		Bill To Information (if different from report to)		State Form / Project Information	
Company Name: <u>JDS-Hydro Consultants</u>	Company Name: <u>SR Water</u>	PWSID: <u>CO 0121724</u>		System Name: <u>Serling Ranch MD</u>	
Contact Name: <u>Mark Volle</u>	Contact Name: <u>Jim Morley</u>	Address: <u>20 Boulder Crescent</u>		Address: <u>20 Boulder Crescent</u>	
Address: <u>545 E. Pikes Peak Ave</u>	Address: <u>20 Boulder Crescent</u>	City: <u>CS</u>	State: <u>CO</u>	City: <u>CS</u>	State: <u>CO</u>
City: <u>CS</u>	City: <u>CS</u>	State: <u>CO</u>	Zip: <u>80903</u>	State: <u>CO</u>	Zip: <u>80903</u>
Phone: <u>719-227-0073</u>	Phone: <u>3870-0001</u>	County: <u>El Paso</u>	Fax: <u></u>	County: <u>El Paso</u>	Fax: <u></u>
Email: <u>mvolle@jds-hydro.com</u>	Email: <u>jmorley@srwater.com</u>	Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Sampler Name: <u>Stephan Schuster</u>	Sampler Name: <u>Stephan Schuster</u>	Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

CAL Task No. 170324007		PHASE I, II, V Drinking Water Analyses (check analysis)															Subcontract Analyses													
ARF		No. of Containers	Residual Chlorine (mg/L)	Total Coliform P/A	504.1 EDR/D/BCP	505 Pests/PCBs	515.4 Herbicides	525.2 SOCs-Pest	531.1 Carbamates	547 Glyphosate	548.1 Endothal	549.2 Diquat	524.2 THMs	522.2 HAAs	Lead/Copper	Nitrate	Nitrite	Fluoride	Inorganics	Alk./Lang. Index	(TOC, DOC (Circle))	SUVA, UV 254 (Circle)	Gross Alpha/Beta	Radium 226	Radium 228	Radon	Uranium			
3-23	8:07	#11																												
	8:00 am	#12																												
	8:26	#14																												
	8:12	#15																												
	8:23	#16 (1,4 Dioxane)																												
	8:27	#17																												
	8:15	#18																												
	8:15	#19																												
	8:29	#20																												

Instructions:  
 Relinquished By: [Signature] Date/Time: 3-23 11:30am  
 Received By: [Signature] Date/Time: 3-23 11:30am

## Analytical Results

TASK NO: 170324007

**Report To:** Mark Volle

**Company:** JDS Hydro Consultants  
545 E. Pikes Peak Ave  
Suite 300  
Colorado Springs CO 80903

**Bill To:** Jim Morley

**Company:** SR Water  
20 Boulder Crescent St.  
Colorado Springs CO 80903

**Task No.:** 170324007  
**Client PO:**  
**Client Project:** Sterling Ranch MD CO0121724

**Date Received:** 3/24/17  
**Date Reported:** 4/21/17  
**Matrix:** Water - Drinking

**Customer Sample ID:** Sterling Ranch MD  
**Sample Date/Time:** 3/23/17 8:03 AM  
**Lab Number:** 170324007-01

Test	Result	Method	ML	Date Analyzed	Analyzed By
Bicarbonate	99.7 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.1	3/28/17	VDB
Calcium as CaCO <sub>3</sub>	2.6 mg/L	SM 3111-B	0.1	3/30/17	MBN
Carbonate	< 0.1 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.1	3/28/17	VDB
Langelier Index	-1.23 units	SM 2330-B		3/31/17	LJG
pH	8.16 units	SM 4500-H-B	0.01	3/24/17	MBN
Temperature	20 °C	SM 4500-H-B	1	3/24/17	MBN
Total Alkalinity	99.7 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.1	3/28/17	VDB
Total Dissolved Solids	143 mg/L	SM 2540-C	5	3/29/17	ISG

**Abbreviations/ References:**

ML = Minimum Level = LRL = RL  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 ml = Most Probable Number Index/ 100 ml  
Date Analyzed = Date Test Completed



DATA APPROVED FOR RELEASE BY









Colorado Department  
of Public Health  
and Environment

**Nitrate and Nitrite as Nitrogen Certified Laboratory Report Form**  
**WQCD - Drinking Water CAS**  
**Submit Online at <http://www.wqcdcompliance.com/login>**

Revised 4/13/2015

**NOX**

Section I (Supplied or Completed by Public Water System)		Section II (Supplied or Completed by Certified Laboratory)	
Public Water System Information		Certified Laboratory Information	
PWSID#: CO0121724		Laboratory ID: CO 0015	
System Name: Sterling Ranch MD		Laboratory Name: Colorado Analytical Laboratory	
Contact Person: Mark Volle	Phone #: 719-227-0072	Contact Person: Customer Service	Phone: 303-659-2313
Comments:		Comments:	

Section III (Supplied or Completed by Public Water System)				Section IV (Supplied or Completed by Certified Laboratory)								
Sample Date	Collector	Facility ID On Schedule	Sample Pt ID On Schedule	Confirmation?	Lab Receipt Date	Lab Analysis Date	Laboratory Sample ID #	Analyte	Analytical Method	MCL (mg/L)	Lab MRL (mg/L)	Result (mg/L)
3/23/17	ephanie Schwenk	New Well	New Well	<input type="checkbox"/>	3/24/17	3/24/17	170324007-01	Nitrate Nitrogen	EPA 300.0	10	0.1	BDL
3/23/17	ephanie Schwenk	New Well	New Well	<input type="checkbox"/>	3/24/17	3/24/17	170324007-01	Nitrite Nitrogen	EPA 300.0	1	0.1	BDL

NT: Not Tested  
 Lab MRL: Laboratory Minimum Reporting Level  
 BDL: Below Laboratory MRL. A less than (<) may also used.

mg/L: Milligrams per Liter  
 MCL: Maximum Contaminant Level





Drinking Water Chain of Custody

page 2 of 2

Report To Information		Bill To Information (if different from report to)	
Company Name: <u>JDS-Hydro Consultants</u>	Company Name: <u>SR Water</u>	PWSID: <u>CO 0121724</u>	System Name: <u>Serling Ranch MD</u>
Contact Name: <u>Mark Volle</u>	Contact Name: <u>Jim Morley</u>	Address: <u>20 Boulder Crest</u>	Address: <u>20 Boulder Crest</u>
Address: <u>545 E. Pikes Peak Ave</u>	Address: <u>20 Boulder Crest</u>	City: <u>CS</u>	City: <u>CS</u>
State: <u>CO</u>	State: <u>CO</u>	State: <u>CO</u>	State: <u>CO</u>
Zip: <u>80903</u>	Zip: <u>80903</u>	Zip: <u>80903</u>	Zip: <u>80903</u>
Phone: <u>719-227-0072</u>	Phone: <u>3870-0001</u>	County: <u>El Paso</u>	County: <u>El Paso</u>
Fax: <u></u>	Fax: <u></u>	Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Email: <u>Mvolle@jds-hydro.com</u>	Email: <u>morley3870@aol.com</u>	Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Sampler Name: <u>Stephanie Schuster</u>	PO No.:		

C/L Task No.		PHASE I, II, V Drinking Water Analyses (check analysis)															Subcontract Analyses												
170324007																													
ARF		No. of Containers	Residual Chlorine (mg/L)	P/A Samples Only	Total Coliform P/A	504.1 EDB/BCP	505 Pests/PCBs	515.4 Herbicides	525.2 SOCs-Pest	531.1 Carbamates	547 Glyphosate	548.1 Endothal	549.2 Diquat	524.2 THMs	552.2 HAAs	Lead/Copper	Nitrate	Nitrite	Fluoride	Inorganics	Alk./Lang. Index	(TOC, DOC) (Circle)	SUVA, UV 254 (Circle)	Gross Alpha/Beta	Radium 226	Radium 228	Radon	Uranium	
3-23	8:01	#11																											
	8:00	<del>#12</del>																											
	8:26	#14																											
	8:18	#15																											
	8:12	#16 (1,4 Dioxane)																											
	8:23	#17																											
	8:24	#18																											
	8:15	#19																											
	8:29	#20																											
Instructions:																													
Retinquired By:		Date/Time:	Received By:	Date/Time:	Retinquired By:	Date/Time:	Delivered Via:	C/S Charge	Temp.	Seals Present	Yes <input type="checkbox"/> No <input type="checkbox"/>	Headspace	Yes <input type="checkbox"/> No <input type="checkbox"/>	Sample Pres.	Yes <input type="checkbox"/> No <input type="checkbox"/>	Date/Time:	Received By:	Date/Time:											
Stephanie Schuster		3-23 11:30am																											



**Organic Chemicals Certified Laboratory Report Form**  
**WQCD - Drinking Water CAS**  
**Submit Online at <http://www.wqedcompliance.com/login>**

Revised 4/13/2015

**VOC/SOC**

Section I (Supplied or Completed by Public Water System)		Section JI (Supplied or Completed by Certified Laboratory)	
Public Water System Information		Certified Laboratory Information	
PWSID#: CO0121724		Laboratory ID: CO 00063	
System Name: Sterling Ranch MD		Laboratory Name: Colorado Analytical Laboratory	
Contact Person: Mark Volle		Contact Person: Customer Service	Phone: 303-659-2313
Comments:		Comments:	
Do Samples Need to be Composited BY THE LAB? <input type="checkbox"/>			

Section V (Supplied or Completed by Public Water System)		Section VI Synthetic Organic Chemicals (Supplied or Completed by Certified Laboratory)		Section VII (Supplied or Completed by Public Water System)				
Lab Receipt Date	Lab Analysis Date	Lab Sample ID	Analyte Name	CAS No	Analytical Method	MCL (ug/L)	Lab MRL (ug/L)	Result (ug/L)
3/24/17	4/3/17	170324007-01E	Dibromochloropropane	96-12-8	EPA 504.1	0.2	0.02	BDL
3/24/17	3/29/17	170324007-01G	2,4-D	94-75-7	EPA 515.4	70	0.1	BDL
3/24/17	3/29/17	170324007-01G	2,4,5-TP	93-72-1	EPA 515.4	50	0.2	BDL
3/24/17	3/31/17	170324007-01I	Alachlor	15972-60-8	EPA 525.2	2	0.2	BDL
3/24/17	3/31/17	170324007-01J	Aldicarb	116-06-3	EPA 531.1	N/A	0.6	BDL
3/24/17	3/31/17	170324007-01J	Aldicarb sulfone	1646-88-4	EPA 531.1	N/A	1	BDL
3/24/17	3/31/17	170324007-01J	Aldicarb sulfoxide	1646-87-3	EPA 531.1	N/A	0.7	BDL
3/24/17	3/31/17	170324007-01I	Atrazine	1912-24-9	EPA 525.2	3	0.1	BDL
3/24/17	3/31/17	170324007-01I	Benzo(a)pyrene	50-32-8	EPA 525.2	0.2	0.02	BDL
3/24/17	3/31/17	170324007-01J	Carbofuran	1563-66-2	EPA 531.1	40	0.9	BDL
3/24/17	3/30/17	170324007-01F	Chlordane	57-74-9	EPA 505	2	0.2	BDL
3/24/17	3/29/17	170324007-01G	Delapon	75-99-0	EPA 515.4	200	1	BDL
3/24/17	3/31/17	170324007-01I	Di(2-ethylhexyl)adipate	103-23-1	EPA 525.2	400	0.6	BDL
3/24/17	3/31/17	170324007-01I	Di(2-ethylhexyl)phthalate	117-81-7	EPA 525.2	6	0.6	BDL
3/24/17	3/29/17	170324007-01G	Dinoseb	85-85-7	EPA 515.4	7	0.2	BDL
3/24/17	3/24/17	170324007-01L	Diquat	85-00-7	EPA 549.2	20	0.4	BDL
3/24/17	3/29/17	170324007-01K	Endothall	145-73-3	EPA 548.1	100	9	BDL
3/24/17	3/30/17	170324007-01F	Endrin	72-20-8	EPA 505	2	0.01	BDL
3/24/17	4/3/17	170324007-01E	Ethylene dibromide	106-93-4	EPA 504.1	0.05	0.01	BDL
3/24/17	3/31/17	170324007-01I	Heptachlor	76-44-8	EPA 525.2	0.4	0.04	BDL
3/24/17	3/30/17	170324007-01F	Heptachlor epoxide	1024-57-3	EPA 505	0.2	0.02	BDL

NT: Not Tested ug/L; Micrograms per Liter MCL: Maximum Contaminant Level BDL: Below Laboratory MRL A less than sign (<) may also be used.

PWSID#: CO0121724		Section V (Supplied or Completed by Public Water System)						
Sample Date:	3/23/17	Collector:	Stephanie Schwenk	Facility ID (On Schedule):	New Well	Sample Pt ID (On Schedule):	New Well	
Section VI Synthetic Organic Chemicals (Supplied or Completed by Certified Laboratory)		Lab Sample ID	Analyte Name	CAS No.	Analytical Method	MCL (ug/L)	Lab MRL (ug/L)	Result (ug/L)
3/24/17	3/30/17	170324007-01F	Hexachlorobenzene	118-74-1	EPA 505	1	0.1	BDL
3/24/17	3/30/17	170324007-01F	Hexachlorocyclopentadiene	77-47-4	EPA 505	50	0.1	BDL
3/24/17	3/30/17	170324007-01F	Lindane	58-89-9	EPA 505	0.2	0.02	BDL
3/24/17	3/30/17	170324007-01F	Methoxychlor	72-43-5	EPA 505	40	0.1	BDL
3/24/17	3/31/17	170324007-01J	Oxamyl	23135-22-0	EPA 531.1	200	1	BDL
3/24/17	3/29/17	170324007-01G	Pentachlorophenol	87-86-5	EPA 515.4	1	0.04	BDL
3/24/17	3/29/17	170324007-01G	Picloram	1918-02-1	EPA 515.4	500	0.1	BDL
3/24/17	3/30/17	170324007-01F	Polychlorinated biphenyl's	1336-36-3	EPA 505	0.5	0.1	BDL
3/24/17	3/31/17	170324007-01I	Simazine	122-34-9	EPA 525.2	4	0.07	BDL
3/24/17	3/30/17	170324007-01F	Toxaphene	8001-35-2	EPA 505	3	1	BDL

NT: Not Tested ug/L; Micrograms per Liter MCL: Maximum Contaminant Level BDL Below Laboratory MRL. A less than sign (<) may also be used.

170324007-01 N

2/2  
4/21/17







Drinking Water Chain of Custody

page 2 of 2

Report To Information		Bill To Information (if different from report to)	
Company Name: <u>JDS-Hydro Consultants</u>	Company Name: <u>SR Water</u>	State Form / Project Information	
Contact Name: <u>Mark Volle</u>	Contact Name: <u>Jim Morley</u>	PWSID: <u>CO 0121724</u>	System Name: <u>Serling Ranch MD</u>
Address: <u>545 E. Pikes Peak Ave</u>	Address: <u>20 Boulder Crescent</u>	Address: <u>20 Boulder Crescent</u>	
<u>Suite 300</u>		City: <u>CS</u>	State: <u>CO</u>
City: <u>CS</u>	State: <u>CO</u>	Zip: <u>80903</u>	Zip: <u>80903</u>
Phone: <u>719-227-0072</u>	Phone: <u>3870-0251</u>	County: <u>El Paso</u>	
Fax: <u></u>	Fax: <u></u>	Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Email: <u>mvolle@jds-hydro.com</u>	Email: <u>jmorley3870@aol.com</u>	Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Sampler Name: <u>Sophene Schusterke</u>	PO No: <u></u>		

CAL Task No. 170324007		PHASE I, II, V Drinking Water Analyses (check analysis)														Subcontract Analyses												
ARF		No. of Containers	Residual Chlorine (mg/L)	Total Coliform P/A	504.1 EDB/BCP	505 Pests/PCBs	515.4 Herbicides	525.2 SOCs-Pest	531.1 Carbinates	547 Glyphosate	548.1 Endothal	549.2 Diquat	524.2 THMs	552.2 HAAs	Lead/Copper	Nitrate	Nitrite	Fluoride	Inorganics	Alk./Lang. Index	(TOC, DOC (Circle))	SUVA, UV 254 (Circle)	Gross Alpha/Beta	Radium 226	Radium 228	Radon	Uranium	
3-23	8:01	#11																										
	8:00 am	#12																										
	8:26	#14																										
	8:18	#15																										
	8:12	#16 (1,4 Dioxane)																										
	8:23	#17																										
	8:24	#18																										
	8:15	#19																										
	8:29	#20																										
Instructions:		C/S Info:		C/S Present Yes <input type="checkbox"/> No <input type="checkbox"/>														Headspace Yes <input type="checkbox"/> No <input type="checkbox"/>										
Relinquished By: <u>[Signature]</u>	Date/Time: <u>3-23 11:30am</u>	Received By: <u>[Signature]</u>	Date/Time: <u>3-23 11:30am</u>	Delivered Via: <input type="checkbox"/> C/S Charge <input type="checkbox"/>		Temp. °C/fcc		Sample Pres. Yes <input type="checkbox"/> No <input type="checkbox"/>		Date/Time:		Received By:		Date/Time:														



Revision 6/13/2014

### Radionuclides Certified Laboratory Report Form

WQCD - Drinking Water CAS  
4300 Cherry Creek Drive South; Denver, CO 80246-1530  
Fax: (303) 758-1398; [cdphe.drinkingwater@state.co.us](mailto:cdphe.drinkingwater@state.co.us)



Colorado Department  
of Public Health  
and Environment

Section I (Supplied or Completed by Public Water System)		Section II (Supplied or Completed by Certified Laboratory)	
Public Water System Information		Certified Laboratory Information	
PWS ID: CO0121724		Laboratory ID: CO 00008	
System Name: Sterling Ranch MD		Laboratory Name: Hazen Research, Inc.	
Contact Person:		Contact Person: Jessica Axen	
Phone #:		Phone #: 303-279-4501	
Do Samples Need to be Compositd BY THE LAB?		Comments:	

Section III (Supplied or Completed by Public Water System)			
Sample Date: 03/23/2017	Collector:	Facility ID (On Schedule):	Sample Pt ID (On Schedule):

Section IV Radionuclides (Supplied or Completed by Certified Laboratory)						
Lab Receipt Date	Lab Analysis Date	Lab Sample ID	Analyte Name (Code)	CAS No.	Analytical Method	Result
03/24/2017	04/18/2017	C27017-001	Gross Alpha Including Uranium (4002)	12587-46-1	SM 7110 B	0.0(±1.5)
			Combined Uranium (4006)	7440-61-1	D2907-97	30 ug/L
03/24/2017	04/07/2017	C27017-001	Radium -226 (4020)	13982-63-3	SM 7500-Ra B	0.4(±0.3)
03/24/2017	03/30/2017	C27017-001	Radium -228 (4030)	15262-20-1	EPA Ra-05	0.2(±0.6)
03/24/2017	04/18/2017	C27017-001	Gross Beta (4100)	12587-47-2	SM 7110 B	0.0(±2.0)
			Total Dissolved Solids (1930)		EPA 160.3	N/A


\*The MCL for Gross Beta Particle Activity is 4 mrem/year. Since there is no simple conversion between mrem/year and pCi/L EPA considers 50 pCi/L to be the level of concern.

Section V Calculated Values			
	Calculated Value	Calculated Value	
Gross Alpha Excluding Uranium (4000)			N/A
Combined Radium {-226 & -228} (4010)			N/A

NT: Not Tested  
 Lab MRL: Laboratory Minimum Reporting Level  
 BD: Below Laboratory MRL. A less than sign (<) may also be used  
 ug/L: Micrograms per Liter  
 pCi/L: Picoocuries per Liter  
 MCL: Maximum Contaminant Level

# Drinking Water Chain of Custody

<b>Report To Information</b>	<b>Bill To Information</b> (if different from report to)	<b>State Form / Project Information</b>
Company Name: <u>Colorado Analytical Labs</u>	Company Name: <u>same</u>	PWSID: <u>C00121724</u>
Contact Name: <u>Stuart Nielson</u>	Contact Name: _____	System Name: <u>Sterling Ranch MID</u>
Address: P.O. Box 507	Address: _____	System Address: <u>20 Boulder Crescent</u>
City: <u>Brighton</u> State: <u>CO</u> Zip: <u>80601</u>	City: _____ State: _____ Zip: _____	City: <u>Colo Spgs</u> State: <u>CO</u> Zip: <u>80903</u>
Phone: <u>303-659-2313</u> Fax: <u>303-659-2315</u>	Phone: _____ Fax: _____	County: <u>El Paso</u>
Email: <u>stuartnielson@coloradolab.com</u>	Email: _____	Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sampler Name: _____	PO No.: _____	Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>


  
**Colorado Analytical Laboratories, Inc.**  
**Brighton Lab**  
 240 South Main Street  
 Brighton, CO 80601  
  
**Lakewood Lab**  
 12860 W. Cedar Dr, Suite 101  
 Lakewood CO 80228  
 Phone: 303-659-2313  
 Fax: 303-659-2315  
[www.coloradolab.com](http://www.coloradolab.com)

CAL Task No. <b>170324007</b>	<b>PHASE I, II, V Drinking Water Analyses (check analysis)</b>															<b>Subcontract Analyses</b>														
ARF																														
Date	Time	Client Sample ID / EP Code	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 Endothall	549.2 Diquat	524.2 TTHMs	552.2 HAA5s	Lead/Copper	Nitrate	Nitrite	Fluoride	Inorganics	Alk./Lang. Index	TOC, DOC (Circle)	SUVA, UV 254 (Circle)	Gross Alpha /Beta	Radium 226	Radium 228	Radon	Uranium	
3/23/17	08:03	170324007 Sterling Ranch MID	6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instructions: Gross Alpha, without Radon & Uranium. ** Combined Radium -226 & -228.			C/S Info:			Seals Present Yes <input type="checkbox"/> No <input type="checkbox"/>											Headspace Yes <input type="checkbox"/> No <input type="checkbox"/>													
Please print results on Colorado State form but do not submit to CDPHE. Thank you.			Delivered Via: <b>HD</b>														Temp. °C/Ice Sample Pres Yes <input type="checkbox"/> No <input type="checkbox"/>													
Relinquished By: <i>Smeller</i>	Date/Time: <u>3/24/17</u> <u>11:50</u>	Received By: _____	Date/Time: _____	Relinquished By: _____	Date/Time: _____	C/S Change <input type="checkbox"/>	Date/Time: _____	Temp. °C/Ice Sample Pres Yes <input type="checkbox"/> No <input type="checkbox"/>	Date/Time: <u>03/24/2017</u>																					

## Analytical Results

TASK NO: 170324007

Report To: Mark Volle

Company: JDS Hydro Consultants  
545 E. Pikes Peak Ave  
Suite 300  
Colorado Springs CO 80903

Bill To: Jim Morley

Company: SR Water  
20 Boulder Crescent St.  
Colorado Springs CO 80903

Task No.: 170324007  
Client PO:  
Client Project: Sterling Ranch MD CO0121724

Date Received: 3/24/17  
Date Reported: 4/21/17  
Matrix: Water - Drinking

Customer Sample ID Sterling Ranch MD  
Sample Date/Time: 3/23/17 8:03 AM  
Lab Number: 170324007-01

Facility ID: New Well  
Sample Point ID: New Well

Test	Result	Method	ML	Date Analyzed	Analyzed By
Chloride	1.3 mg/L	EPA 300.0	0.1 mg/L	3/24/17	LJG
Cyanide-Free	< 0.005 mg/L	EPA 335.4	0.005 mg/L	3/28/17	VDB
E-Coli	< 1 mpn/100ml	Coli fert	1 mpn/100ml	3/25/17	VDB
Sulfate	10.7 mg/L	EPA 300.0	0.1 mg/L	3/24/17	LJG
Total Coliform	68 mpn/100ml	Coli fert	1 mpn/100ml	3/25/17	VDB
Total Organic Carbon	< 0.5 mg/L	SM 5310-C	0.5 mg/L	3/28/17	ISG
Turbidity	1.08 NTU	SM 2130-B	0.01 NTU	3/24/17	MBN
<b>Total</b>					
Aluminum	0.032 mg/L	EPA 200.8	0.001 mg/L	3/29/17	TCD
Calcium	1.0 mg/L	EPA 200.7	0.1 mg/L	3/29/17	MBN
Copper	< 0.0008 mg/L	EPA 200.8	0.0008 mg/L	3/29/17	TCD
Iron	0.180 mg/L	EPA 200.7	0.005 mg/L	3/30/17	MBN
Lead	0.0002 mg/L	EPA 200.8	0.0001 mg/L	3/29/17	TCD
Magnesium	0.06 mg/L	EPA 200.7	0.02 mg/L	3/29/17	MBN
Manganese	0.0071 mg/L	EPA 200.8	0.0008 mg/L	3/29/17	TCD
Potassium	1.0 mg/L	EPA 200.7	0.1 mg/L	3/29/17	MBN
Silver	< 0.0001 mg/L	EPA 200.8	0.0001 mg/L	3/29/17	TCD
Strontium	0.009 mg/L	EPA 200.8	0.005 mg/L	3/29/17	TCD
Total Hardness	2.7 mg/L as CaCO <sub>3</sub>	SM 2340-B	0.1 mg/L as CaCO <sub>3</sub>	3/30/17	MBN
Uranium	< 0.0002 mg/L	EPA 200.8	0.0002 mg/L	3/29/17	TCD
Zinc	0.002 mg/L	EPA 200.8	0.001 mg/L	3/29/17	TCD

**Abbreviations/ References:**

ML = Minimum Level = LRL = RL  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 ml = Most Probable Number Index/ 100 ml  
Date Analyzed = Date Test Completed



DATA APPROVED FOR RELEASE BY

**Analytical Results**

**TASK NO: 170324007**

**Report To:** Mark Volle  
**Company:** JDS Hydro Consultants  
545 E. Pikes Peak Ave  
Suite 300  
Colorado Springs CO 80903

**Bill To:** Jim Morley  
**Company:** SR Water  
20 Boulder Crescent St.  
Colorado Springs CO 80903

**Task No.:** 170324007  
**Client PO:**  
**Client Project:** Sterling Ranch MD CO0121724

**Date Received:** 3/24/17  
**Date Reported:** 4/21/17  
**Matrix:** Water - Drinking

**Customer Sample ID:** Sterling Ranch MD  
**Sample Date/Time:** 3/23/17 8:03 AM  
**Lab Number:** 170324007-01

**Facility ID:** New Well  
**Sample Point ID:** New Well

Test	Result	Method	ML	Date Analyzed	Analyzed By
<u>Total</u> Zinc	0.002 mg/L	EPA 200.8	0.001 mg/L	3/29/17	TCD

**Abbreviations/ References:**

ML = Minimum Level = LRL = RL  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpr/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed



DATA APPROVED FOR RELEASE BY







# ANALYTICAL SUMMARY REPORT

April 06, 2017

Colorado Analytical Laboratories Inc  
PO Drawer 507  
Brighton, CO 80601

Work Order: C17030850      Quote ID: C4542 - 624, 625, 1,4-Dioxane  
Project Name: 170324007 Sterling Ranch MD

Energy Laboratories, Inc. Casper WY received the following 1 sample for Colorado Analytical Laboratories Inc on 3/28/2017 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C17030850-001	170324007 Sterling Ranch MD	03/23/17 8:03	03/28/17	Groundwater	Azeotropic Distillation Separatory Funnel Liquid-Liquid Ext. Semi-Volatile Organic Compounds 624-Purgeable Organics Volatile Compounds by Azeotropic Distillation

The results as reported relate only to the item(s) submitted for testing. The analyses presented in this report were performed at Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these test results, please call.

Report Approved By:

  
Randy Horton, Project Manager

Digitally signed by  
Randy Horton  
Date: 2017.04.06 16:31:29 -06:00





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Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

**CLIENT:** Colorado Analytical Laboratories Inc  
**Project:** 170324007 Sterling Ranch MD  
**Work Order:** C17030850

**Report Date:** 04/06/17

## **CASE NARRATIVE**

---

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170324007 Sterling Ranch MD  
**Lab ID:** C17030850-001  
**Client Sample ID:** 170324007 Sterling Ranch MD

**Report Date:** 04/06/17  
**Collection Date:** 03/23/17 08:03  
**Date Received:** 03/28/17  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
----------	--------	-------	------------	----	-------------	--------	--------------------

#### VOCS BY AZEOTROPIC DISTILLATION

1,4-Dioxane	ND	ug/L		1.0		SW8260M	04/06/17 09:34 / eli-b
-------------	----	------	--	-----	--	---------	------------------------

- Analysis by direct aqueous injection of the sample distillate. A deuterated version of 1,4-Dioxane was added to the sample prior to distillation and used to quantitate the 1,4-Dioxane and account for any variations in the analysis or distillation.

#### VOLATILE ORGANIC COMPOUNDS

Acetone	ND	ug/L		20		E624	03/31/17 16:09 / eli-b
Acetonitrile	ND	ug/L		20		E624	03/31/17 16:09 / eli-b
Acrolein	ND	ug/L		20		E624	03/31/17 16:09 / eli-b
Acrylonitrile	ND	ug/L		20		E624	03/31/17 16:09 / eli-b
Benzene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Bromobenzene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Bromochloromethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Bromodichloromethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Bromoform	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Bromomethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Carbon disulfide	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Carbon tetrachloride	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Chlorobenzene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Chlorodibromomethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Chloroethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Chloroform	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Chloromethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
2-Chlorotoluene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
4-Chlorotoluene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,2-Dibromoethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Dibromomethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,2-Dichlorobenzene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,3-Dichlorobenzene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,4-Dichlorobenzene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Dichlorodifluoromethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,1-Dichloroethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,2-Dichloroethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,1-Dichloroethene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
cis-1,2-Dichloroethene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
trans-1,2-Dichloroethene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,2-Dichloropropane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,3-Dichloropropane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
2,2-Dichloropropane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,1-Dichloropropene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
cis-1,3-Dichloropropene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
trans-1,3-Dichloropropene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Ethylbenzene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170324007 Sterling Ranch MD  
**Lab ID:** C17030850-001  
**Client Sample ID:** 170324007 Sterling Ranch MD

**Report Date:** 04/06/17  
**Collection Date:** 03/23/17 08:03  
**Date Received:** 03/28/17  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Methyl tert-butyl ether (MTBE)	ND	ug/L		2.0		E624	03/31/17 16:09 / eli-b
Methyl ethyl ketone	ND	ug/L		20		E624	03/31/17 16:09 / eli-b
Methyl isobutyl ketone	ND	ug/L		10		E624	03/31/17 16:09 / eli-b
Methylene chloride	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Naphthalene	ND	ug/L		0.50		E624	03/31/17 16:09 / eli-b
Styrene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Tetrachloroethene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Toluene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Trichloroethene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,1,1-Trichloroethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,1,2-Trichloroethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Trichlorofluoromethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,2,3-Trichloropropane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Vinyl Acetate	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Vinyl chloride	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
m+p-Xylenes	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
o-Xylene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Xylenes, Total	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Surr: 1,2-Dichloroethane-d4	105	%REC		71-139		E624	03/31/17 16:09 / eli-b
Surr: p-Bromofluorobenzene	102	%REC		80-127		E624	03/31/17 16:09 / eli-b
Surr: Toluene-d8	92.0	%REC		80-123		E624	03/31/17 16:09 / eli-b

### SEMI-VOLATILE ORGANIC COMPOUNDS

Acenaphthene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Acenaphthylene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Anthracene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Azobenzene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Benzidine	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Benzo(a)anthracene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Benzo(a)pyrene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Benzo(b)fluoranthene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Benzo(g,h,i)perylene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Benzo(k)fluoranthene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
4-Bromophenyl phenyl ether	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Butylbenzylphthalate	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
4-Chloro-3-methylphenol	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
bis(-2-chloroethoxy)Methane	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
bis(-2-chloroethyl)Ether	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
bis(2-chloroisopropyl)Ether	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
2-Chloronaphthalene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
2-Chlorophenol	ND	ug/L		10		E625	03/30/17 17:14 / eli-b

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170324007 Sterling Ranch MD  
**Lab ID:** C17030850-001  
**Client Sample ID:** 170324007 Sterling Ranch MD

**Report Date:** 04/06/17  
**Collection Date:** 03/23/17 08:03  
**Date Received:** 03/28/17  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
4-Chlorophenyl phenyl ether	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Chrysene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Diethyl phthalate	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Di-n-butyl phthalate	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
1,2-Dichlorobenzene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
1,3-Dichlorobenzene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
1,4-Dichlorobenzene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
3,3'-Dichlorobenzidine	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
2,4-Dichlorophenol	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Dimethyl phthalate	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Di-n-octyl phthalate	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Dibenzo(a,h)anthracene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
2,4-Dimethylphenol	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
4,6-Dinitro-2-methylphenol	ND	ug/L		50		E625	03/30/17 17:14 / eli-b
2,4-Dinitrophenol	ND	ug/L		50		E625	03/30/17 17:14 / eli-b
2,4-Dinitrotoluene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
2,6-Dinitrotoluene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
bis(2-ethylhexyl)Phthalate	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Fluoranthene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Fluorene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Hexachlorobenzene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Hexachlorobutadiene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Hexachlorocyclopentadiene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Hexachloroethane	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Indeno(1,2,3-cd)pyrene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Isophorone	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
n-Nitrosodimethylamine	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
n-Nitroso-di-n-propylamine	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
n-Nitrosodiphenylamine	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
2-Nitrophenol	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
4-Nitrophenol	ND	ug/L		50		E625	03/30/17 17:14 / eli-b
Naphthalene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Nitrobenzene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Pentachlorophenol	ND	ug/L		50		E625	03/30/17 17:14 / eli-b
Phenanthrene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Phenol	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Pyrene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
1,2,4-Trichlorobenzene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
2,4,6-Trichlorophenol	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Surr: 2-Fluorobiphenyl	61.0	%REC		28-107		E625	03/30/17 17:14 / eli-b
Surr: 2-Fluorophenol	39.0	%REC		20-56		E625	03/30/17 17:14 / eli-b
Surr: Nitrobenzene-d5	63.0	%REC		32-94		E625	03/30/17 17:14 / eli-b
Surr: Phenol-d5	27.0	%REC		19-45		E625	03/30/17 17:14 / eli-b

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170324007 Sterling Ranch MD  
**Lab ID:** C17030850-001  
**Client Sample ID:** 170324007 Sterling Ranch MD

**Report Date:** 04/06/17  
**Collection Date:** 03/23/17 08:03  
**Date Received:** 03/28/17  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
Surr: Terphenyl-d14	70.0	%REC		32-122		E625	03/30/17 17:14 / eli-b
Surr: 2,4,6-Tribromophenol	68.0	%REC		21-130		E625	03/30/17 17:14 / eli-b

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 04/06/17

Project: 170324007 Sterling Ranch MD

Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624							Analytical Run: R277281		
Lab ID: ccv033117	Continuing Calibration Verification Standard						03/31/17 08:45		
Acetone	58.0	ug/L	20	116	70	130			
Acetonitrile	56.4	ug/L	20	113	70	130			
Acrolein	56.4	ug/L	20	113	70	130			
Acrylonitrile	49.6	ug/L	20	99	70	130			
Benzene	5.08	ug/L	0.50	102	70	130			
Bromobenzene	5.04	ug/L	0.50	101	70	130			
Bromochloromethane	5.36	ug/L	0.50	107	70	130			
Bromodichloromethane	4.92	ug/L	0.50	98	70	130			
Bromoform	5.04	ug/L	0.50	101	70	130			
Bromomethane	4.28	ug/L	0.50	86	70	130			
Carbon disulfide	5.32	ug/L	0.50	106	70	130			
Carbon tetrachloride	5.80	ug/L	0.50	116	70	130			
Chlorobenzene	4.56	ug/L	0.50	91	70	130			
Chlorodibromomethane	5.04	ug/L	0.50	101	70	130			
Chloroethane	4.80	ug/L	0.50	96	70	130			
2-Chloroethyl vinyl ether	2.90	ug/L	1.0	58	70	130			S
Chloroform	5.60	ug/L	0.50	112	70	130			
Chloromethane	3.82	ug/L	0.50	76	70	130			
2-Chlorotoluene	5.00	ug/L	0.50	100	70	130			
4-Chlorotoluene	5.44	ug/L	0.50	109	70	130			
1,2-Dibromoethane	4.68	ug/L	0.50	94	70	130			
Dibromomethane	4.96	ug/L	0.50	99	70	130			
1,2-Dichlorobenzene	5.04	ug/L	0.50	101	70	130			
1,3-Dichlorobenzene	5.16	ug/L	0.50	103	70	130			
1,4-Dichlorobenzene	5.00	ug/L	0.50	100	70	130			
Dichlorodifluoromethane	5.20	ug/L	0.50	104	70	130			
1,1-Dichloroethane	4.96	ug/L	0.50	99	70	130			
1,2-Dichloroethane	6.24	ug/L	0.50	125	70	130			
1,1-Dichloroethene	5.12	ug/L	0.50	102	70	130			
cis-1,2-Dichloroethene	4.76	ug/L	0.50	95	70	130			
trans-1,2-Dichloroethene	5.00	ug/L	0.50	100	70	130			
1,2-Dichloropropane	4.88	ug/L	0.50	98	70	130			
1,3-Dichloropropane	4.88	ug/L	0.50	98	70	130			
2,2-Dichloropropane	5.72	ug/L	0.50	114	70	130			
1,1-Dichloropropene	5.44	ug/L	0.50	109	70	130			
cis-1,3-Dichloropropene	4.80	ug/L	0.50	96	70	130			
trans-1,3-Dichloropropene	4.84	ug/L	0.50	97	70	130			
Ethylbenzene	4.88	ug/L	0.50	98	70	130			
Methyl tert-butyl ether (MTBE)	5.20	ug/L	0.50	104	70	130			
Methyl ethyl ketone	54.0	ug/L	20	108	70	130			
Methyl isobutyl ketone	50.4	ug/L	20	101	70	130			
Methylene chloride	5.88	ug/L	0.50	118	70	130			
Naphthalene	5.08	ug/L	0.50	102	70	130			

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170324007 Sterling Ranch MD

**Report Date:** 04/06/17  
**Work Order:** C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E624</b>							Analytical Run: R277281		
<b>Lab ID:</b> ccv033117	Continuing Calibration Verification Standard						03/31/17 08:45		
Styrene	4.52	ug/L	0.50	90	70	130			
Tetrachloroethene	4.68	ug/L	0.50	94	70	130			
1,1,1,2-Tetrachloroethane	4.72	ug/L	0.50	94	70	130			
1,1,2,2-Tetrachloroethane	4.96	ug/L	0.50	99	70	130			
Toluene	4.76	ug/L	0.50	95	70	130			
Trichloroethene	4.92	ug/L	0.50	98	70	130			
1,1,1-Trichloroethane	5.72	ug/L	0.50	114	70	130			
1,1,2-Trichloroethane	4.72	ug/L	0.50	94	70	130			
Trichlorofluoromethane	4.88	ug/L	0.50	98	70	130			
1,2,3-Trichloropropane	5.24	ug/L	0.50	105	70	130			
Vinyl Acetate	5.32	ug/L	1.0	106	70	130			
Vinyl chloride	4.60	ug/L	0.50	92	70	130			
m+p-Xylenes	9.32	ug/L	0.50	93	70	130			
o-Xylene	4.52	ug/L	0.50	90	70	130			
Xylenes, Total	13.8	ug/L	0.50	92	70	130			
Surr: 1,2-Dichloroethane-d4			0.50	107	71	139			
Surr: p-Bromofluorobenzene			0.50	102	80	127			
Surr: Toluene-d8			0.50	91	80	123			

<b>Method: E624</b>							Batch: R277281		
<b>Lab ID:</b> lcs033117	Laboratory Control Sample						Run: 5971A.L_170331A		03/31/17 09:19
Acetone	56.0	ug/L	20	112	55	144			
Acetonitrile	56.8	ug/L	20	114	54	142			
Acrolein	42.4	ug/L	20	85	16	233			
Acrylonitrile	48.4	ug/L	20	97	76	127			
Benzene	4.92	ug/L	0.50	98	73	122			
Bromobenzene	4.96	ug/L	0.50	99	74	129			
Bromochloromethane	5.16	ug/L	0.50	103	66	120			
Bromodichloromethane	5.16	ug/L	0.50	103	74	128			
Bromoform	5.12	ug/L	0.50	102	66	128			
Bromomethane	4.76	ug/L	0.50	95	51	123			
Carbon disulfide	5.36	ug/L	0.50	107	46	145			
Carbon tetrachloride	5.72	ug/L	0.50	114	75	125			
Chlorobenzene	4.64	ug/L	0.50	93	80	123			
Chlorodibromomethane	5.32	ug/L	0.50	106	74	125			
Chloroethane	4.48	ug/L	0.50	90	59	142			
2-Chloroethyl vinyl ether	2.62	ug/L	1.0	52	36	144			
Chloroform	5.52	ug/L	0.50	110	68	124			
Chloromethane	3.77	ug/L	0.50	75	53	146			
2-Chlorotoluene	5.08	ug/L	0.50	102	75	131			
4-Chlorotoluene	5.36	ug/L	0.50	107	74	129			
1,2-Dibromoethane	4.64	ug/L	0.50	93	76	124			
Dibromomethane	5.16	ug/L	0.50	103	77	125			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc  
Project: 170324007 Sterling Ranch MD

Report Date: 04/06/17  
Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E624</b>							<b>Batch: R277281</b>		
<b>Lab ID: Ics033117</b>	<b>Laboratory Control Sample</b>				<b>Run: 5971A.I_170331A</b>		<b>03/31/17 09:19</b>		
1,2-Dichlorobenzene	4.96	ug/L	0.50	99	74	124			
1,3-Dichlorobenzene	5.12	ug/L	0.50	102	77	122			
1,4-Dichlorobenzene	4.96	ug/L	0.50	99	76	126			
Dichlorodifluoromethane	5.60	ug/L	0.50	112	56	146			
1,1-Dichloroethane	4.72	ug/L	0.50	94	74	133			
1,2-Dichloroethane	5.76	ug/L	0.50	115	75	129			
1,1-Dichloroethene	5.16	ug/L	0.50	103	74	132			
cis-1,2-Dichloroethene	4.88	ug/L	0.50	98	81	122			
trans-1,2-Dichloroethene	5.12	ug/L	0.50	102	79	143			
1,2-Dichloropropane	4.80	ug/L	0.50	92	75	126			
1,3-Dichloropropane	4.68	ug/L	0.50	94	71	136			
2,2-Dichloropropane	5.68	ug/L	0.50	114	68	142			
1,1-Dichloropropene	5.00	ug/L	0.50	100	70	131			
cis-1,3-Dichloropropene	4.40	ug/L	0.50	88	74	135			
trans-1,3-Dichloropropene	4.84	ug/L	0.50	97	76	149			
Ethylbenzene	4.96	ug/L	0.50	99	72	130			
Methyl tert-butyl ether (MTBE)	5.12	ug/L	0.50	102	72	120			
Methyl ethyl ketone	52.0	ug/L	20	104	45	130			
Methyl isobutyl ketone	50.8	ug/L	20	102	58	135			
Methylene chloride	6.08	ug/L	0.50	122	66	142			
Naphthalene	5.60	ug/L	0.50	112	69	124			
Styrene	4.56	ug/L	0.50	91	80	124			
Tetrachloroethene	4.72	ug/L	0.50	94	72	131			
1,1,1,2-Tetrachloroethane	4.64	ug/L	0.50	93	78	124			
1,1,2,2-Tetrachloroethane	4.76	ug/L	0.50	95	68	137			
Toluene	4.76	ug/L	0.50	95	72	135			
Trichloroethene	4.80	ug/L	0.50	96	85	126			
1,1,1-Trichloroethane	5.40	ug/L	0.50	108	63	120			
1,1,2-Trichloroethane	4.48	ug/L	0.50	90	78	124			
Trichlorofluoromethane	4.52	ug/L	0.50	90	72	120			
1,2,3-Trichloropropane	4.68	ug/L	0.50	94	64	138			
Vinyl Acetate	4.76	ug/L	1.0	95	31	124			
Vinyl chloride	4.76	ug/L	0.50	95	58	140			
m+p-Xylenes	9.08	ug/L	0.50	91	67	139			
o-Xylene	4.48	ug/L	0.50	90	74	135			
Xylenes, Total	13.6	ug/L	0.50	90	70	137			
Surr: 1,2-Dichloroethane-d4			0.50	109	71	139			
Surr: p-Bromofluorobenzene			0.50	102	80	127			
Surr: Toluene-d8			0.50	92	80	123			
<b>Lab ID: blk033117</b>	<b>Method Blank</b>				<b>Run: 5971A.I_170331A</b>		<b>03/31/17 10:18</b>		
Acetone	ND	ug/L	20						
Acetonitrile	ND	ug/L	20						

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.





# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170324007 Sterling Ranch MD

**Report Date:** 04/06/17  
**Work Order:** C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E624</b>							Batch: R277281		
<b>Lab ID: blk033117</b>	Method Blank		Run: 5971A.I_170331A				03/31/17 10:18		
Acrolein	ND	ug/L				20			
Acrylonitrile	ND	ug/L				20			
Benzene	ND	ug/L			0.50				
Bromobenzene	ND	ug/L			0.50				
Bromochloromethane	ND	ug/L			0.50				
Bromodichloromethane	ND	ug/L			0.50				
Bromoform	ND	ug/L			0.50				
Bromomethane	ND	ug/L			0.50				
Carbon disulfide	ND	ug/L			0.50				
Carbon tetrachloride	ND	ug/L			0.50				
Chlorobenzene	ND	ug/L			0.50				
Chlorodibromomethane	ND	ug/L			0.50				
Chloroethane	ND	ug/L			0.50				
2-Chloroethyl vinyl ether	ND	ug/L			1.0				
Chloroform	ND	ug/L			0.50				
Chloromethane	ND	ug/L			0.50				
2-Chlorotoluene	ND	ug/L			0.50				
4-Chlorotoluene	ND	ug/L			0.50				
1,2-Dibromoethane	ND	ug/L			0.50				
Dibromomethane	ND	ug/L			0.50				
1,2-Dichlorobenzene	ND	ug/L			0.50				
1,3-Dichlorobenzene	ND	ug/L			0.50				
1,4-Dichlorobenzene	ND	ug/L			0.50				
Dichlorodifluoromethane	ND	ug/L			0.50				
1,1-Dichloroethane	ND	ug/L			0.50				
1,2-Dichloroethane	ND	ug/L			0.50				
1,1-Dichloroethene	ND	ug/L			0.50				
cis-1,2-Dichloroethene	ND	ug/L			0.50				
trans-1,2-Dichloroethene	ND	ug/L			0.50				
1,2-Dichloropropane	ND	ug/L			0.50				
1,3-Dichloropropane	ND	ug/L			0.50				
2,2-Dichloropropane	ND	ug/L			0.50				
1,1-Dichloropropene	ND	ug/L			0.50				
cis-1,3-Dichloropropene	ND	ug/L			0.50				
trans-1,3-Dichloropropene	ND	ug/L			0.50				
Ethylbenzene	ND	ug/L			0.50				
Methyl tert-butyl ether (MTBE)	ND	ug/L			0.50				
Methyl ethyl ketone	ND	ug/L			20				
Methyl isobutyl ketone	ND	ug/L			20				
Methylene chloride	ND	ug/L			0.50				
Naphthalene	ND	ug/L			0.50				
Styrene	ND	ug/L			0.50				
Tetrachloroethene	ND	ug/L			0.50				

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc  
Project: 170324007 Sterling Ranch MD

Report Date: 04/06/17  
Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
<b>Method: E624</b>							Batch: R277281			
<b>Lab ID: blk033117</b>	Method Blank		Run: 5971A.I_170331A			03/31/17 10:18				
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50							
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50							
Toluene	ND	ug/L	0.50							
Trichloroethene	ND	ug/L	0.50							
1,1,1-Trichloroethane	ND	ug/L	0.50							
1,1,2-Trichloroethane	ND	ug/L	0.50							
Trichlorofluoromethane	ND	ug/L	0.50							
1,2,3-Trichloropropane	ND	ug/L	0.50							
Vinyl Acetate	ND	ug/L	1.0							
Vinyl chloride	ND	ug/L	0.50							
m+p-Xylenes	ND	ug/L	0.50							
o-Xylene	ND	ug/L	0.50							
Xylenes, Total	ND	ug/L	0.50							
Surr: 1,2-Dichloroethane-d4			0.50	105	71	139				
Surr: p-Bromofluorobenzene			0.50	104	80	127				
Surr: Toluene-d8			0.50	92	80	123				
<b>Lab ID: b17031875-001dms</b>							Run: 5971A.I_170331A			03/31/17 14:12
Acetone	378	ug/L	100	109	55	144				
Acetonitrile	274	ug/L	100	110	54	142				
Benzene	24.6	ug/L	2.5	98	73	122				
Bromobenzene	24.8	ug/L	2.5	99	74	129				
Bromochloromethane	25.2	ug/L	2.5	101	66	120				
Bromodichloromethane	26.2	ug/L	2.5	105	74	128				
Bromoform	27.0	ug/L	2.5	108	66	128				
Bromomethane	18.8	ug/L	2.5	75	51	123				
Carbon disulfide	26.4	ug/L	2.5	106	46	145				
Carbon tetrachloride	28.2	ug/L	2.5	113	75	125				
Chlorobenzene	22.8	ug/L	2.5	91	80	123				
Chlorodibromomethane	26.8	ug/L	2.5	107	74	125				
Chloroethane	20.2	ug/L	2.5	81	59	142				
Chloroform	33.2	ug/L	2.5	110	68	124				
Chloromethane	18.6	ug/L	2.5	74	53	146				
2-Chlorotoluene	24.8	ug/L	2.5	99	75	131				
4-Chlorotoluene	25.8	ug/L	2.5	103	74	129				
1,2-Dibromoethane	24.0	ug/L	2.5	96	76	124				
Dibromomethane	26.2	ug/L	2.5	105	77	125				
1,2-Dichlorobenzene	24.6	ug/L	2.5	98	74	124				
1,3-Dichlorobenzene	24.6	ug/L	2.5	98	77	122				
1,4-Dichlorobenzene	24.6	ug/L	2.5	98	76	126				
Dichlorodifluoromethane	27.0	ug/L	2.5	108	56	146				
1,1-Dichloroethane	24.2	ug/L	2.5	97	74	133				
1,2-Dichloroethane	29.2	ug/L	2.5	117	75	129				

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170324007 Sterling Ranch MD

**Report Date:** 04/06/17  
**Work Order:** C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E624</b>							<b>Batch: R277281</b>		
<b>Lab ID: b17031875-001dms</b>	<b>Sample Matrix Spike</b>		<b>Run: 5971A.I_170331A</b>				<b>03/31/17 14:12</b>		
1,1-Dichloroethene	26.6	ug/L	2.5	106	74	132			
cis-1,2-Dichloroethene	24.4	ug/L	2.5	98	81	122			
trans-1,2-Dichloroethene	25.8	ug/L	2.5	103	79	143			
1,2-Dichloropropane	23.0	ug/L	2.5	92	75	126			
1,3-Dichloropropane	22.4	ug/L	2.5	90	71	136			
2,2-Dichloropropane	28.0	ug/L	2.5	112	68	142			
1,1-Dichloropropene	25.2	ug/L	2.5	101	70	131			
cis-1,3-Dichloropropene	22.2	ug/L	2.5	89	74	135			
trans-1,3-Dichloropropene	24.6	ug/L	2.5	98	76	149			
Ethylbenzene	23.6	ug/L	2.5	94	72	130			
Methyl tert-butyl ether (MTBE)	25.6	ug/L	2.5	102	72	120			
Methyl ethyl ketone	268	ug/L	100	107	45	130			
Methyl isobutyl ketone	258	ug/L	100	103	58	135			
Methylene chloride	32.2	ug/L	2.5	129	66	142			
Naphthalene	27.6	ug/L	2.5	110	69	124			
Styrene	22.4	ug/L	2.5	90	80	124			
Tetrachloroethene	22.8	ug/L	2.5	91	72	131			
1,1,1,2-Tetrachloroethane	23.0	ug/L	2.5	92	78	124			
1,1,2,2-Tetrachloroethane	26.0	ug/L	2.5	104	68	137			
Toluene	24.4	ug/L	2.5	95	72	135			
Trichloroethene	23.8	ug/L	2.5	95	85	126			
1,1,1-Trichloroethane	26.8	ug/L	2.5	107	63	120			
1,1,2-Trichloroethane	23.4	ug/L	2.5	94	78	124			
Trichlorofluoromethane	21.2	ug/L	2.5	85	72	120			
1,2,3-Trichloropropane	26.2	ug/L	2.5	105	64	138			
Vinyl Acetate	24.4	ug/L	5.0	98	31	124			
Vinyl chloride	22.6	ug/L	2.5	90	58	140			
m+p-Xylenes	44.8	ug/L	2.5	90	67	139			
o-Xylene	22.6	ug/L	2.5	90	74	135			
Xylenes, Total	67.4	ug/L	2.5	90	70	137			
Surr: 1,2-Dichloroethane-d4			2.5	110	71	139			
Surr: p-Bromofluorobenzene			2.5	102	80	127			
Surr: Toluene-d8			2.5	93	80	123			
<b>Lab ID: b17031875-001dmsd</b>	<b>Sample Matrix Spike Duplicate</b>		<b>Run: 5971A.I_170331A</b>				<b>03/31/17 15:11</b>		
Acetone	410	ug/L	100	122	55	144	8.1	20	
Acetonitrile	262	ug/L	100	105	54	142	4.5	20	
Benzene	25.0	ug/L	2.5	100	73	122	1.6	20	
Bromobenzene	25.6	ug/L	2.5	102	74	129	3.2	20	
Bromochloromethane	25.2	ug/L	2.5	101	66	120	0.0	20	
Bromodichloromethane	27.2	ug/L	2.5	109	74	128	3.7	20	
Bromoform	28.4	ug/L	2.5	114	66	128	5.1	20	
Bromomethane	20.8	ug/L	2.5	83	51	123	10	20	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc  
Project: 170324007 Sterling Ranch MD

Report Date: 04/06/17  
Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624							Batch: R277281		
Lab ID: b17031875-001dmsd	Sample Matrix Spike Duplicate		Run: 5971A.I_170331A				03/31/17 15:11		
Carbon disulfide	25.6	ug/L	2.5	102	46	145	3.1	20	
Carbon tetrachloride	28.6	ug/L	2.5	114	75	125	1.4	20	
Chlorobenzene	23.6	ug/L	2.5	94	80	123	3.4	20	
Chlorodibromomethane	28.0	ug/L	2.5	112	74	125	4.4	20	
Chloroethane	20.6	ug/L	2.5	82	59	142	2.0	20	
Chloroform	33.6	ug/L	2.5	111	68	124	1.2	20	
Chloromethane	19.3	ug/L	2.5	77	53	146	3.8	20	
2-Chlorotoluene	26.4	ug/L	2.5	106	75	131	6.2	20	
4-Chlorotoluene	27.2	ug/L	2.5	109	74	129	5.3	20	
1,2-Dibromoethane	24.0	ug/L	2.5	96	76	124	0.0	20	
Dibromomethane	26.8	ug/L	2.5	107	77	125	2.3	20	
1,2-Dichlorobenzene	25.8	ug/L	2.5	103	74	124	4.8	20	
1,3-Dichlorobenzene	26.0	ug/L	2.5	104	77	122	5.5	20	
1,4-Dichlorobenzene	25.4	ug/L	2.5	102	76	126	3.2	20	
Dichlorodifluoromethane	25.8	ug/L	2.5	103	56	146	4.5	20	
1,1-Dichloroethane	24.8	ug/L	2.5	99	74	133	2.4	20	
1,2-Dichloroethane	29.2	ug/L	2.5	117	75	129	0.0	20	
1,1-Dichloroethene	26.8	ug/L	2.5	107	74	132	0.7	20	
cis-1,2-Dichloroethene	25.2	ug/L	2.5	101	81	122	3.2	20	
trans-1,2-Dichloroethene	26.4	ug/L	2.5	106	79	143	2.3	20	
1,2-Dichloropropane	23.6	ug/L	2.5	94	75	126	2.6	20	
1,3-Dichloropropane	23.8	ug/L	2.5	95	71	136	6.1	20	
2,2-Dichloropropane	28.6	ug/L	2.5	114	68	142	2.1	20	
1,1-Dichloropropene	25.8	ug/L	2.5	103	70	131	2.4	20	
cis-1,3-Dichloropropene	23.2	ug/L	2.5	93	74	135	4.4	20	
trans-1,3-Dichloropropene	25.4	ug/L	2.5	102	76	149	3.2	20	
Ethylbenzene	25.0	ug/L	2.5	100	72	130	5.8	20	
Methyl tert-butyl ether (MTBE)	26.6	ug/L	2.5	106	72	120	3.8	20	
Methyl ethyl ketone	292	ug/L	100	117	45	130	8.6	20	
Methyl isobutyl ketone	286	ug/L	100	114	58	135	10	20	
Methylene chloride	31.4	ug/L	2.5	126	66	142	2.5	20	
Naphthalene	27.8	ug/L	2.5	111	69	124	0.7	20	
Styrene	22.8	ug/L	2.5	91	80	124	1.8	20	
Tetrachloroethene	23.8	ug/L	2.5	95	72	131	4.3	20	
1,1,1,2-Tetrachloroethane	23.2	ug/L	2.5	93	78	124	0.9	20	
1,1,2,2-Tetrachloroethane	27.4	ug/L	2.5	110	68	137	5.2	20	
Toluene	24.4	ug/L	2.5	95	72	135	0.0	20	
Trichloroethene	25.0	ug/L	2.5	100	85	126	4.9	20	
1,1,1-Trichloroethane	27.4	ug/L	2.5	110	63	120	2.2	20	
1,1,2-Trichloroethane	24.8	ug/L	2.5	99	78	124	5.8	20	
Trichlorofluoromethane	22.4	ug/L	2.5	90	72	120	5.5	20	
1,2,3-Trichloropropane	26.8	ug/L	2.5	107	64	138	2.3	20	
Vinyl Acetate	24.4	ug/L	5.0	98	31	124	0.0	20	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170324007 Sterling Ranch MD

**Report Date:** 04/06/17  
**Work Order:** C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E624</b>							<b>Batch: R277281</b>		
<b>Lab ID:</b> b17031875-001dmsd	<b>Sample Matrix Spike Duplicate</b>		<b>Run: 5971A.I_170331A</b>				<b>03/31/17 15:11</b>		
Vinyl chloride	22.8	ug/L	2.5	91	58	140	0.9	20	
m+p-Xylenes	46.0	ug/L	2.5	92	67	139	2.6	20	
o-Xylene	23.4	ug/L	2.5	94	74	135	3.5	20	
Xylenes, Total	69.4	ug/L	2.5	93	70	137			
Surr: 1,2-Dichloroethane-d4			2.5	112	71	139			
Surr: p-Bromofluorobenzene			2.5	105	80	127			
Surr: Toluene-d8			2.5	93	80	123			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 04/06/17

Project: 170324007 Sterling Ranch MD

Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E625</b>							Batch: 107942		
<b>Lab ID: MB-107942</b>	Method Blank		Run: SV5973N2.I_170330B				03/30/17 16:12		
Acenaphthene	ND	ug/L							
Acenaphthylene	ND	ug/L							
Anthracene	ND	ug/L							
Azobenzene	ND	ug/L							
Benzidine	ND	ug/L							
Benzo(a)anthracene	ND	ug/L							
Benzo(a)pyrene	ND	ug/L							
Benzo(b)fluoranthene	ND	ug/L							
Benzo(g,h,i)perylene	ND	ug/L							
Benzo(k)fluoranthene	ND	ug/L							
4-Bromophenyl phenyl ether	ND	ug/L							
Butylbenzylphthalate	ND	ug/L							
4-Chloro-3-methylphenol	ND	ug/L							
bis(-2-chloroethoxy)Methane	ND	ug/L							
bis(-2-chloroethyl)Ether	ND	ug/L							
bis(2-chloroisopropyl)Ether	ND	ug/L							
2-Chloronaphthalene	ND	ug/L							
2-Chlorophenol	ND	ug/L							
4-Chlorophenyl phenyl ether	ND	ug/L							
Chrysene	ND	ug/L							
Diethyl phthalate	ND	ug/L							
Di-n-butyl phthalate	ND	ug/L							
1,2-Dichlorobenzene	ND	ug/L							
1,3-Dichlorobenzene	ND	ug/L							
1,4-Dichlorobenzene	ND	ug/L							
3,3'-Dichlorobenzidine	ND	ug/L							
2,4-Dichlorophenol	ND	ug/L							
Dimethyl phthalate	ND	ug/L							
Di-n-octyl phthalate	ND	ug/L							
Dibenzo(a,h)anthracene	ND	ug/L							
2,4-Dimethylphenol	ND	ug/L							
4,6-Dinitro-2-methylphenol	ND	ug/L							50
2,4-Dinitrophenol	ND	ug/L							50
2,4-Dinitrotoluene	ND	ug/L							10
2,6-Dinitrotoluene	ND	ug/L							10
bis(2-ethylhexyl)Phthalate	ND	ug/L							10
Fluoranthene	ND	ug/L							10
Fluorene	ND	ug/L							10
Hexachlorobenzene	ND	ug/L							10
Hexachlorobutadiene	ND	ug/L							10
Hexachlorocyclopentadiene	ND	ug/L							10
Hexachloroethane	ND	ug/L							10
Indeno(1,2,3-cd)pyrene	ND	ug/L							10

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170324007 Sterling Ranch MD

**Report Date:** 04/06/17  
**Work Order:** C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E625</b>							<b>Batch: 107942</b>		
<b>Lab ID: MB-107942</b>	<b>Method Blank</b>		<b>Run: SV5973N2.I_170330B</b>				<b>03/30/17 16:12</b>		
Isophorone	ND	ug/L	10						
n-Nitrosodimethylamine	ND	ug/L	10						
n-Nitroso-di-n-propylamine	ND	ug/L	10						
n-Nitrosodiphenylamine	ND	ug/L	10						
2-Nitrophenol	ND	ug/L	10						
4-Nitrophenol	ND	ug/L	50						
Naphthalene	ND	ug/L	10						
Nitrobenzene	ND	ug/L	10						
Pentachlorophenol	ND	ug/L	50						
Phenanthrene	ND	ug/L	10						
Phenol	ND	ug/L	10						
Pyrene	ND	ug/L	10						
1,2,4-Trichlorobenzene	ND	ug/L	10						
2,4,6-Trichlorophenol	ND	ug/L	10						
Surr: 2-Fluorobiphenyl			10	57	28	107			
Surr: 2-Fluorophenol			10	42	20	56			
Surr: Nitrobenzene-d5			10	62	32	94			
Surr: Phenol-d5			10	30	19	45			
Surr: Terphenyl-d14			10	80	32	122			
Surr: 2,4,6-Tribromophenol			10	68	21	130			
<b>Lab ID: LCS-107942</b>	<b>Laboratory Control Sample</b>		<b>Run: SV5973N2.I_170330B</b>				<b>03/30/17 16:43</b>		
Acenaphthene	89.1	ug/L	10	89	58	99			
Acenaphthylene	84.2	ug/L	10	84	57	96			
Anthracene	75.6	ug/L	10	76	60	107			
Azobenzene	78.0	ug/L	10	78	56	100			
Benzidine	53.1	ug/L	10	53	10	100			
Benzo(a)anthracene	86.4	ug/L	10	86	62	114			
Benzo(a)pyrene	84.7	ug/L	10	85	62	108			
Benzo(b)fluoranthene	89.8	ug/L	10	90	48	127			
Benzo(g,h,i)perylene	87.2	ug/L	10	87	62	121			
Benzo(k)fluoranthene	84.0	ug/L	10	84	55	111			
4-Bromophenyl phenyl ether	87.1	ug/L	10	87	58	105			
Butylbenzylphthalate	90.8	ug/L	10	91	60	113			
4-Chloro-3-methylphenol	74.6	ug/L	10	75	53	92			
bis(2-chloroethoxy)Methane	69.9	ug/L	10	70	50	92			
bis(2-chloroethyl)Ether	72.1	ug/L	10	72	44	82			
bis(2-chloroisopropyl)Ether	63.2	ug/L	10	63	56	87			
2-Chloronaphthalene	84.9	ug/L	10	85	56	95			
2-Chlorophenol	67.2	ug/L	10	67	47	76			
4-Chlorophenyl phenyl ether	83.0	ug/L	10	83	58	99			
Chrysene	87.0	ug/L	10	87	63	106			
Diethyl phthalate	84.6	ug/L	10	85	58	103			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170324007 Sterling Ranch MD

**Report Date:** 04/06/17  
**Work Order:** C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E625</b>							<b>Batch: 107942</b>		
<b>Lab ID: LCS-107942</b>	<b>Laboratory Control Sample</b>				<b>Run: SV5973N2.I_170330B</b>		<b>03/30/17 16:43</b>		
Di-n-butyl phthalate	87.1	ug/L	10	87	61	110			
1,2-Dichlorobenzene	69.3	ug/L	10	69	43	81			
1,3-Dichlorobenzene	64.0	ug/L	10	64	41	79			
1,4-Dichlorobenzene	64.5	ug/L	10	64	42	79			
3,3'-Dichlorobenzidine	64.8	ug/L	10	65	51	93			
2,4-Dichlorophenol	70.6	ug/L	10	71	49	90			
Dimethyl phthalate	82.5	ug/L	10	82	58	104			
Di-n-octyl phthalate	93.4	ug/L	10	93	56	110			
Dibenzo(a,h)anthracene	87.8	ug/L	10	88	61	111			
2,4-Dimethylphenol	66.2	ug/L	10	66	45	89			
4,6-Dinitro-2-methylphenol	66.1	ug/L	50	66	37	105			
2,4-Dinitrophenol	54.1	ug/L	50	54	27	81			
2,4-Dinitrotoluene	86.2	ug/L	10	86	63	110			
2,6-Dinitrotoluene	77.2	ug/L	10	77	60	107			
bis(2-ethylhexyl)Phthalate	86.0	ug/L	10	86	56	108			
Fluoranthene	84.2	ug/L	10	84	63	110			
Fluorene	89.3	ug/L	10	89	60	99			
Hexachlorobenzene	82.7	ug/L	10	83	57	103			
Hexachlorobutadiene	71.7	ug/L	10	72	39	83			
Hexachlorocyclopentadiene	81.0	ug/L	10	81	39	91			
Hexachloroethane	65.0	ug/L	10	65	37	75			
Indeno(1,2,3-cd)pyrene	83.2	ug/L	10	83	59	109			
Isophorone	69.8	ug/L	10	70	42	102			
n-Nitrosodimethylamine	36.8	ug/L	10	37	20	45			
n-Nitroso-di-n-propylamine	76.6	ug/L	10	77	49	98			
n-Nitrosodiphenylamine	91.5	ug/L	10	92	61	108			
2-Nitrophenol	72.3	ug/L	10	72	51	96			
4-Nitrophenol	27.4	ug/L	50	27	15	36			
Naphthalene	68.1	ug/L	10	68	48	96			
Nitrobenzene	77.9	ug/L	10	78	51	91			
Pentachlorophenol	72.4	ug/L	50	72	53	109			
Phenanthrene	82.0	ug/L	10	82	58	104			
Phenol	40.6	ug/L	10	41	27	45			
Pyrene	85.0	ug/L	10	85	64	108			
1,2,4-Trichlorobenzene	71.2	ug/L	10	71	49	85			
2,4,6-Trichlorophenol	73.9	ug/L	10	74	47	99			
Surr: 2-Fluorobiphenyl			10	69	28	107			
Surr: 2-Fluorophenol			10	42	20	56			
Surr: Nitrobenzene-d5			10	72	32	94			
Surr: Phenol-d5			10	36	19	45			
Surr: Terphenyl-d14			10	80	32	122			
Surr: 2,4,6-Tribromophenol			10	70	21	130			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.





QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170324007 Sterling Ranch MD

Report Date: 04/06/17
Work Order: C17030850

Table with columns: Analyte, Result, Units, RL, %REC, Low Limit, High Limit, RPD, RPDLimit, Qual. Includes Method: E625, Lab ID: C17030850-001CMS, Sample Matrix Spike, Run: SV5973N2.I\_170330B, Batch: 107942, and 30 analyte rows with various results and limits.

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 04/06/17

Project: 170324007 Sterling Ranch MD

Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625							Batch: 107942		
Lab ID: C17030850-001CMS	Sample Matrix Spike		Run: SV5973N2.I_170330B				03/30/17 17:45		
Isophorone	71.4	ug/L	10	71	42	102			
n-Nitrosodimethylamine	26.1	ug/L	10	26	20	45			
n-Nitroso-di-n-propylamine	76.1	ug/L	10	76	49	98			
n-Nitrosodiphenylamine	105	ug/L	10	105	61	108			
2-Nitrophenol	73.5	ug/L	10	74	51	96			
4-Nitrophenol	25.8	ug/L	50	26	15	36			
Naphthalene	75.6	ug/L	10	76	48	96			
Nitrobenzene	75.6	ug/L	10	76	51	91			
Pentachlorophenol	60.3	ug/L	50	60	53	109			
Phenanthrene	83.8	ug/L	10	84	58	104			
Phenol	38.7	ug/L	10	39	27	45			
Pyrene	87.0	ug/L	10	87	64	108			
1,2,4-Trichlorobenzene	74.7	ug/L	10	75	49	85			
2,4,6-Trichlorophenol	68.8	ug/L	10	69	47	99			
Surr: 2-Fluorobiphenyl			10	51	28	107			
Surr: 2-Fluorophenol			10	41	20	56			
Surr: Nitrobenzene-d5			10	64	32	94			
Surr: Phenol-d5			10	33	19	45			
Surr: Terphenyl-d14			10	73	32	122			
Surr: 2,4,6-Tribromophenol			10	67	21	130			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 04/06/17

Project: 170324007 Sterling Ranch MD

Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E625</b>							<b>Analytical Run: R277253</b>		
<b>Lab ID: 30-Mar-17_CCV_11</b>	<b>Continuing Calibration Verification Standard</b>						<b>03/30/17 15:40</b>		
Acenaphthene	75.3	ug/L	10	100	80	120			
Acenaphthylene	79.7	ug/L	10	106	80	120			
Anthracene	75.2	ug/L	10	100	80	120			
Azobenzene	75.1	ug/L	10	100	80	120			
Benzidine	70.6	ug/L	10	94	80	120			
Benzo(a)anthracene	76.3	ug/L	10	102	80	120			
Benzo(a)pyrene	81.9	ug/L	10	109	80	120			
Benzo(b)fluoranthene	78.3	ug/L	10	104	80	120			
Benzo(g,h,i)perylene	78.0	ug/L	10	104	80	120			
Benzo(k)fluoranthene	81.6	ug/L	10	109	80	120			
4-Bromophenyl phenyl ether	81.6	ug/L	10	109	80	120			
Butylbenzylphthalate	78.0	ug/L	10	104	80	120			
4-Chloro-3-methylphenol	76.0	ug/L	10	101	80	120			
bis(2-chloroethoxy)Methane	70.4	ug/L	10	94	80	120			
bis(2-chloroethyl)Ether	77.2	ug/L	10	103	80	120			
bis(2-chloroisopropyl)Ether	76.7	ug/L	10	102	80	120			
2-Chloronaphthalene	79.8	ug/L	10	106	80	120			
2-Chlorophenol	72.7	ug/L	10	97	80	120			
4-Chlorophenyl phenyl ether	72.7	ug/L	10	97	80	120			
Chrysene	74.9	ug/L	10	100	80	120			
Diethyl phthalate	76.8	ug/L	10	102	80	120			
Di-n-butyl phthalate	76.9	ug/L	10	102	80	120			
1,2-Dichlorobenzene	76.8	ug/L	10	102	80	120			
1,3-Dichlorobenzene	72.1	ug/L	10	96	80	120			
1,4-Dichlorobenzene	74.8	ug/L	10	100	80	120			
3,3'-Dichlorobenzidine	76.2	ug/L	10	102	80	120			
2,4-Dichlorophenol	73.5	ug/L	10	98	80	120			
Dimethyl phthalate	77.0	ug/L	10	103	80	120			
Di-n-octyl phthalate	81.2	ug/L	10	108	80	120			
Dibenzo(a,h)anthracene	76.2	ug/L	10	102	80	120			
2,4-Dimethylphenol	70.3	ug/L	10	94	80	120			
4,6-Dinitro-2-methylphenol	77.4	ug/L	50	103	80	120			
2,4-Dinitrophenol	80.2	ug/L	50	107	80	120			
2,4-Dinitrotoluene	79.8	ug/L	10	106	80	120			
2,6-Dinitrotoluene	80.8	ug/L	10	108	80	120			
bis(2-ethylhexyl)Phthalate	77.3	ug/L	10	103	80	120			
Fluoranthene	76.8	ug/L	10	102	80	120			
Fluorene	82.8	ug/L	10	110	80	120			
Hexachlorobenzene	74.2	ug/L	10	99	80	120			
Hexachlorobutadiene	73.0	ug/L	10	97	80	120			
Hexachlorocyclopentadiene	79.2	ug/L	10	106	80	120			
Hexachloroethane	74.4	ug/L	10	99	80	120			
Indeno(1,2,3-cd)pyrene	73.3	ug/L	10	98	80	120			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



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Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170324007 Sterling Ranch MD

**Report Date:** 04/06/17  
**Work Order:** C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E625</b>							Analytical Run: R277253		
<b>Lab ID: 30-Mar-17_CCV_11</b>	<b>Continuing Calibration Verification Standard</b>						03/30/17 15:40		
Isophorone	71.5	ug/L	10	95	80	120			
n-Nitrosodimethylamine	79.5	ug/L	10	106	80	120			
n-Nitroso-di-n-propylamine	76.0	ug/L	10	101	80	120			
n-Nitrosodiphenylamine	77.5	ug/L	10	103	80	120			
2-Nitrophenol	74.6	ug/L	10	99	80	120			
4-Nitrophenol	72.4	ug/L	50	97	80	120			
Naphthalene	68.4	ug/L	10	91	80	120			
Nitrobenzene	77.1	ug/L	10	103	80	120			
Pentachlorophenol	71.7	ug/L	50	96	80	120			
Phenanthrene	70.9	ug/L	10	95	80	120			
Phenol	79.0	ug/L	10	105	80	120			
Pyrene	79.0	ug/L	10	105	80	120			
1,2,4-Trichlorobenzene	73.1	ug/L	10	98	80	120			
2,4,6-Trichlorophenol	71.0	ug/L	10	95	80	120			
Surr: 2-Fluorobiphenyl			10	108	80	120			
Surr: 2-Fluorophenol			10	105	80	120			
Surr: Nitrobenzene-d5			10	101	80	120			
Surr: Phenol-d5			10	102	80	120			
Surr: Terphenyl-d14			10	104	80	120			
Surr: 2,4,6-Tribromophenol			10	105	80	120			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 170324007 Sterling Ranch MD

**Report Date:** 04/06/17  
**Work Order:** C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> SW8260M									Analytical Run: 108173
<b>Lab ID:</b> CCV-108173	Continuing Calibration Verification Standard								04/06/17 08:29
1,4-Dioxane	95.7	ug/L	1.0	96	80	120			
<b>Method:</b> SW8260M									Batch: 108173
<b>Lab ID:</b> LCS-108173	Laboratory Control Sample								04/06/17 08:51
1,4-Dioxane	87.5	ug/L	1.0	88	70	130			Run: VOA5973A.I_170406A
<b>Lab ID:</b> MB-108173	Method Blank								04/06/17 09:12
1,4-Dioxane	ND	ug/L	1.0						Run: VOA5973A.I_170406A
<b>Lab ID:</b> C17030850-001AMS	Sample Matrix Spike								04/06/17 09:55
1,4-Dioxane	194	ug/L	2.0	97	70	130			Run: VOA5973A.I_170406A
<b>Lab ID:</b> C17030850-001AMSD	Sample Matrix Spike Duplicate								04/06/17 10:17
1,4-Dioxane	206	ug/L	2.0	103	70	130	6.0	20	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# Work Order Receipt Checklist

Colorado Analytical Laboratories Inc

C17030850

Login completed by: Corinne Wagner

Date Received: 3/28/2017

Reviewed by: Kasey Vidick

Received by: ckw

Reviewed Date: 3/29/2017

Carrier name: Ground

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on all sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	6.6°C On Ice - From Field		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>

## Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as -dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

## Contact and Corrective Action Comments:

None



## **EPC Confined Aquifer Sampling Requirements**

### Field Measurements

pH

Temp

### Radionuclides

Radium 226 and Radium 228

Gross alpha/Beta

### Inorganics

Antimony

Arsenic

Barium

Beryllium

Cadmium

Chromium

Cyanide (Total)

Fluoride

Mercury

Nitrate

Nitrite

Selenium

Thallium

### Secondary MCLs

Aluminum

Chloride

Corrosivity

Iron

Manganese

Silver

Sulfate

Zinc

TDS

### Bacteriological:

Total Coliform



## Stephanie Schwenke

---

**From:** Catherine McGarvy <CatherineMcGarvy@elpasoco.com>  
**Sent:** Tuesday, October 13, 2020 11:59 AM  
**To:** Stephanie Schwenke  
**Subject:** RE: Small subdivision plat approval question regarding sampled water quality

Good Afternoon,

I apologize for the delay in response I am working through a lot of inquiries at the moment and wanted to make sure I had the most accurate information for you.

El Paso County Public Health (EPCPH) will note this on the Water Quality sufficiency determination. That determination is usually made just before the Final Plat is submitted. Once we make comment on the sufficiency they will usually attach and record plat note to the subdivision final drawings that is part of the information disclosed when anyone buys a lot. In some cases EPCPH has strongly encouraged the installation of an under the counter type RO system be installed, especially with a more prevalent contaminant like fluoride or nitrates. A high radium result on one test is not likely the case throughout the subdivision, so a plat note is what I would expect.

I hope this helps, please let me know if I can provide any additional information.

Thank you

**Kat McGarvy** M.S., R.E.H.S  
Water Quality Program Manager  
El Paso County Public Health  
1675 W. Garden of the Gods Rd., Ste. 2044  
Colorado Springs, CO 80907  
Office: (719) 578-3112  
Cell: (719) 337-7832  
Fax: (719) 578-3118  
[www.elpasocountypublichealth.org](http://www.elpasocountypublichealth.org)

For local information about the novel coronavirus disease 2019 (COVID-19), visit [El Paso County Public Health's COVID-19 website](#).





2020 Census information can be found at:  
<https://coloradosprings.gov/pikespeakcensus>

---

**From:** Stephanie Schwenke <sschwenke@jdshydro.com>  
**Sent:** Thursday, October 8, 2020 4:31 PM  
**To:** Catherine McGarvy <CatherineMcGarvy@elpasoco.com>  
**Subject:** Small subdivision plat approval question regarding sampled water quality

**CAUTION: This email originated from outside the El Paso County technology network. Do not click links or open attachments unless you recognize the sender and know the content is safe. Please call IT Customer Support at 520-6355 if you are unsure of the integrity of this message.**

---

Kat,

I believe you have replaced Aaron Doussett in responding to water quality questions within El Paso County Health. I have a client who would like to subdivide land on the eastern side of the County into 10 - 12 lots that would range in size from 2.5 - 5 acres. We were able to pull water samples from the same aquifer at a property that was 0.5 miles away from the furthest possible future well in this subdivision. All the water quality came back below MCL limits except combined Radium 226+228. The result was 5.5 pCi/l using the standard deviation. That result is just above the MCL for combined Radium 226+228 of 5 pCi/l.

JDS is wondering if EPC would sign off on the signature page of the Water Resources Report with a recommendation for disclosure of the results to the lot purchaser. With that disclosure would be treatment information for the new owner to install one of several NSF approved Reverse Osmosis Point of Use treatment systems in the new home for the removal of Radium 226+228.

Please respond as soon as possible and do not hesitate to contact to contact me if you have any questions.

Thank you for your time!

**Stephanie Schwenke**  
JDS-Hydro Consultants, INC  
545 E. Pikes Peak Ave. Ste 300  
Colorado Springs, CO 80903  
719-227-0072  
719-321-5341 (c)  
[sschwenke@jdshydro.com](mailto:sschwenke@jdshydro.com)



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: Stephanie Schwenke-JDS-Hydro
SITE ADDRESS: 10620 Vollmer Colorado Springs, CO 80908	PHONE: (719) 227-0072
	FAX/EMAIL: sschwenke@jdshydro.com
	COLLECTED BY: Stephanie Schwenke
	SAMPLE COLLECTION DATE: 9/8/20
SITE DESCRIPTION: <input type="checkbox"/> Public System <input checked="" type="checkbox"/> Private <input type="checkbox"/> Surface <input type="checkbox"/> Stream <input type="checkbox"/> GWUDI <input type="checkbox"/> Other	SAMPLE COLLECTION TIME: 0850
	MATRIX: Groundwater
	RESIDUAL CHLORINE: mg/L
CUSTOMER: Stephanie Schwenke-JDS-Hydro 5540 Tech Center Drive Ste 100 COLORADO SPRINGS, CO 80908	SAMPLE RECEIVED DATE: 9/8/20
	RECEIVED TIME: 1350      TECH: EE0000728
	RECEIVED TEMP: 21.8°C
	DILUTIONS: 1:1

COMMENTS:

TESTED	COMPLETED	TECH
DATE: 09/09/2020	DATE: 09/09/2000	
TIME: 1122	TIME: 1440	ID: EE0000742
LAB SAMPLE #:IC21798	SAMPLE POINT NAME: Hydrant	
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	BDL	mg/L	1.0		EPA 300	0.2
Bromide		mg/L				0.2
Nitrate-N	< 0.2	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

**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: 09/08/2020 Time: 0850

Name of Supply:

Address where sample was taken: 10620 Vollmer

Sample site location: Hydrant

Sampler: Stephanie Schwe Chlorine: mg/L

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

Results to: Stephanie Schwenke-JDS-Hydro

Phone: (719) 227-0072

Mailing address: 5540 Tech Center Drive

City/State/Zip: COLORADO SPRINGS, CO. 8019

Fax/Email: sschwenke@jdsyhydro.com

Comments:

Date 09/08/2020 Time 1350 Rc'd EE0000728

Date 09/08/2020 Time 1541 Tested EE0000742

Date 09/09/2020 Time 0953 Comp EE0000742

**Lab Sample #21797**

**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:

**Analytical Results**

**TASK NO: 200910111**

**Report To:** Stephanie Schwenke  
**Company:** JDS Hydro Consultants  
5540 Tech Center Dr.  
Suite 100  
Colorado Springs CO 80919

**Bill To:** Stephanie Schwenke  
**Company:** JDS Hydro Consultants  
5540 Tech Center Dr.  
Suite 100  
Colorado Springs CO 80919

**Task No.:** 200910111  
**Client PO:**  
**Client Project:**

**Date Received:** 9/10/20  
**Date Reported:** 9/23/20  
**Matrix:** Water - Drinking

**Customer Sample ID** Retreat Test  
**Sample Date/Time:** 9/8/20 8:35 AM  
**Lab Number:** 200910111-01

Test	Result	Method	ML	Date Analyzed	Analyzed By
Bicarbonate	70.0 mg/L as CaCO <sub>3</sub>	SM 2320-B	4	9/11/20	ECM
Calcium as CaCO <sub>3</sub>	60.2 mg/L	EPA 200.7	0.1	9/15/20	MBN
Carbonate	< 4 mg/L as CaCO <sub>3</sub>	SM 2320-B	4	9/11/20	ECM
Hydroxide	< 4 mg/L as CaCO <sub>3</sub>	SM 2320-B	4	9/11/20	ECM
Langelier Index	-1.19 units	SM 2330-B		9/23/20	SAN
pH	7.03 units	SM 4500-H-B	0.01	9/8/20	Sampler
Temperature	16 °C	SM 4500-H-B	1	9/8/20	Sampler
Total Alkalinity	70.0 mg/L as CaCO <sub>3</sub>	SM 2320-B	4	9/11/20	ECM
Total Dissolved Solids	141 mg/L	SM 2540-C	5	9/15/20	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: 200910111**

**Report To:** Stephanie Schwenke  
**Company:** JDS Hydro Consultants  
5540 Tech Center Dr.  
Suite 100  
Colorado Springs CO 80919

**Bill To:** Stephanie Schwenke  
**Company:** JDS Hydro Consultants  
5540 Tech Center Dr.  
Suite 100  
Colorado Springs CO 80919

**Task No.:** 200910111  
**Client PO:**  
**Client Project:**

**Date Received:** 9/10/20  
**Date Reported:** 9/23/20  
**Matrix:** Water - Drinking

**Customer Sample ID** Retreat Test  
**Sample Date/Time:** 9/8/20 8:35 AM  
**Lab Number:** 200910111-01

Test	Result	Method	ML	Date Analyzed	Analyzed By	MCL
Chloride	2.1 mg/L	EPA 300.0	0.1 mg/L	9/11/20	MAT	
Fluoride	0.30 mg/L	EPA 300.0	0.09 mg/L	9/11/20	MAT	4
Sulfate	10.4 mg/L	EPA 300.0	0.1 mg/L	9/11/20	MAT	
Cyanide-Total	< 0.005 mg/L	EPA 335.4	0.005 mg/L	9/15/20	CES	0.02
<i>Total</i>						
Iron	0.005 mg/L	EPA 200.7	0.005 mg/L	9/15/20	MBN	0.3
Aluminum	0.007 mg/L	EPA 200.8	0.001 mg/L	9/16/20	IPC	0.05
Antimony	< 0.0012 mg/L	EPA 200.8	0.0012 mg/L	9/16/20	IPC	0.006
Arsenic	0.0008 mg/L	EPA 200.8	0.0006 mg/L	9/16/20	IPC	0.01
Barium	0.1151 mg/L	EPA 200.8	0.0007 mg/L	9/16/20	IPC	2
Beryllium	< 0.0001 mg/L	EPA 200.8	0.0001 mg/L	9/16/20	IPC	0.004
Cadmium	< 0.0001 mg/L	EPA 200.8	0.0001 mg/L	9/16/20	IPC	0.005
Chromium	< 0.0015 mg/L	EPA 200.8	0.0015 mg/L	9/16/20	IPC	0.1
Manganese	0.0081 mg/L	EPA 200.8	0.0008 mg/L	9/16/20	IPC	0.05
Mercury	< 0.0001 mg/L	EPA 200.8	0.0001 mg/L	9/16/20	IPC	0.002
Selenium	< 0.0008 mg/L	EPA 200.8	0.0008 mg/L	9/16/20	IPC	0.05
Silver	< 0.0005 mg/L	EPA 200.8	0.0005 mg/L	9/16/20	IPC	
Thallium	< 0.0002 mg/L	EPA 200.8	0.0002 mg/L	9/16/20	IPC	0.002
Zinc	0.118 mg/L	EPA 200.8	0.001 mg/L	9/16/20	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

October 06, 2020

Report to:

Stephanie Schwenke  
JDS Hydro Consultants, Inc.  
5540 Tech Center Drive

Colorado Springs, CO 80919

cc: John McGinn

Bill to:

Stephanie Schwenke  
JDS Hydro Consultants, Inc.  
545 E. Pikes Peak Ave.  
Suite 300  
Colorado Springs, CO 80903

Project ID:

ACZ Project ID: L61347

Stephanie Schwenke:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on September 09, 2020. This project has been assigned to ACZ's project number, L61347. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L61347. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after November 05, 2020. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.



Sue Webber has reviewed and approved this report.



**JDS Hydro Consultants, Inc.**

Project ID:

Sample ID: #1-#3 RETREAT TEST

Locator:

ACZ Sample ID: **L61347-01**

Date Sampled: 09/08/20 8:42

Date Received: 09/09/20

Sample Matrix: *Drinking Water*

Gross Alpha &amp; Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	09/28/20 0:23		1.1	1.2	1.2	pCi/L		fdw
Gross Beta	09/28/20 0:23		6	2.1	1.8	pCi/L	*	fdw

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	09/23/20 0:27		1.4	0.18	0.08	pCi/L	*	djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	10/03/20 14:40		5	0.72	0.53	pCi/L	*	fdw



**Report Header Explanations**

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Error(+/-)</i>	Calculated sample specific uncertainty
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>LCL</i>	Lower Control Limit, in % (except for LCSS, mg/Kg)
<i>LLD</i>	Calculated sample specific Lower Limit of Detection
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
<i>REr</i>	Relative Error Ratio, calculation used for Dup. QC taking into account the error factor.
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>UCL</i>	Upper Control Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

**QC Sample Types**

<i>DUP</i>	Sample Duplicate	<i>MS/MSD</i>	Matrix Spike/Matrix Spike Duplicate
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBS</i>	Prep Blank - Soil
<i>LCSW</i>	Laboratory Control Sample - Water	<i>PBW</i>	Prep Blank - Water

**QC Sample Type Explanations**

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Matrix Spikes	Determines sample matrix interferences, if any.

**ACZ Qualifiers (Qual)**

H	Analysis exceeded method hold time.
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**Method Prefix Reference**

M	EPA methodology, including those under SDWA, CWA, and RCRA
SM	Standard Methods for the Examination of Water and Wastewater.
D	ASTM
RP	DOE
ESM	DOE/ESM

**Comments**

- (1) Solid matrices are reported on a dry weight basis.
- (2) Preparation method: "Method" indicates preparation defined in analytical method.
- (3) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

JDS Hydro Consultants, Inc.

ACZ Project ID: L61347

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Units: pCi/L

M900.0

Alpha

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
<b>WG505597</b>																
WG505597PBW	PBW	09/28/20				0.19	0.79	-49	0.19	0.79			1.58			
WG505597LCSWA	LCSW	09/28/20	PCN60283	66.67		6	0.88	73	6	0.88	110	67	144			
L61267-01DUP	DUP-RER	09/28/20			1.1	1.6	1.7	2.7	1.9	1.6			0.64	2		
L61267-01DUP	DUP-RPD	09/28/20			1.1	1.6	1.7	2.7	1.9	1.6			84	20		RG
L61319-04MSA	MS	09/28/20	PCN60283	131.58	-0.54	1.7	3.1	100	14	3.7	76	67	144			
L61535-05DUP	DUP-RPD	09/28/20			8.1	5.7	15	8	5.6	29				1	20	

Units: pCi/L

M900.0

Beta

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
<b>WG505597</b>																
WG505597PBW	PBW	09/28/20				1.7	1.9	-1.6	1.7	1.9			3.8			
WG505597LCSWB	LCSW	09/28/20	RC200602-10	66.6		4	1.7	61	4	1.7	92	82	122			
L61267-01DUP	DUP-RPD	09/28/20			2.6	1.9	1.8	2.8	2.1	2				7	20	
L61267-01MSB	MS	09/28/20	RC200602-10	66.6	2.6	1.9	1.8	64	4.3	1.9	92	82	122			
L61535-05DUP	DUP-RER	09/28/20			-1.9	5.7	19	2.2	5.5	24			0.52	2		
L61535-05DUP	DUP-RPD	09/28/20			-1.9	5.7	19	2.2	5.5	24				2733	20	RG

Units: pCi/L

M903.1

Radium 226, total

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
<b>WG505137</b>																
WG505137PBW	PBW	09/23/20				0.1	0.11	.03	0.1	0.11			0.22			
WG505137LCSW	LCSW	09/23/20	PCN61539	20		0.5	0.1	14	0.5	0.1	70	43	148			
L61175-04DUP1	DUP-RER	09/23/20			0.05	0.12	0.13	.1	0.1	0.12				0.32	2	
L61175-04DUP1	DUP-RPD	09/23/20			0.05	0.12	0.13	.1	0.1	0.12				67	20	RG
L61189-01MS	MS	09/23/20	PCN61539	20	0.12	0.12	0.12	16	0.48	0.07	79	43	148			
L61271-01DUP2	DUP-RPD	09/23/20			0.29	0.1	0.39	.38	0.2	0.2				27	20	RG
L61271-01DUP2	DUP-RER	09/23/20			0.29	0.1	0.39	.38	0.2	0.2				0.4	2	

JDS Hydro Consultants, Inc.

ACZ Project ID: L61347

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

**Radium 228, total** M904.0 **Units: pCi/L**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
<b>WG505781</b>																
L61504-01DUP	DUP-RPD	10/03/20			1.5	1.3	3.2	1.9	1	2.4				24	20	RG
L61504-01DUP	DUP-RER	10/03/20			1.5	1.3	3.2	1.9	1	2.4				0.24	2	
L61267-04DUP	DUP-RER	10/03/20			0.3	0.36	0.36	.87	1.1	1.1				0.49	2	
WG505781LCSW	LCSW	10/03/20	PCN61541	4.82				5.4	0.54	0.35	112	47	123			
WG505781PBW	PBW	10/03/20						.45	0.36	0.36			0.72			
L61267-04DUP	DUP-RPD	10/03/20			0.3	0.36	0.36	.87	1.1	1.1				97	20	RG
L61267-05MS	MS	10/03/20	PCN61541	9.63	0.5	0.54	0.54	13	1.4	0.97	130	47	123			M1

JDS Hydro Consultants, Inc.

ACZ Project ID: **L61347**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L61347-01	NG505597	Gross Beta	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG505137	Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG505781	Radium 228, total	M904.0	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.

JDS Hydro Consultants, Inc.

ACZ Project ID: **L61347**

No certification qualifiers associated with this analysis

JDS Hydro Consultants, Inc.

ACZ Project ID: L61347  
 Date Received: 09/09/2020 12:23  
 Received By:  
 Date Printed: 9/10/2020

**Receipt Verification**

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

**Samples/Containers**

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? <sup>1</sup>	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

**Chain of Custody Related Remarks**

**Client Contact Remarks**

**Shipping Containers**

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
4817	5.5	NA	15	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

JDS Hydro Consultants, Inc.

ACZ Project ID: L61347

Date Received: 09/09/2020 12:23

Received By:

Date Printed: 9/10/2020

<sup>1</sup> The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).





# *Appendix F*

Appendix F  
Sterling Ranch Metropolitan District #1  
Tabulation of Commitments vs. Supply within SRMD#1 Service Area  
Update February 26, 2021

Sterling Ranch Water Supply

	Summary of Existing Available Supplies	Summary of Projected Available Supplies upon Resolution of Pending Case	
	Acre-Feet 300 Year Non-UBS	Acre-Feet 300 - Year Non UBS	
Existing Available Supplies summarized from From Table 2			
The Ranch Onsite (UBS)			Onsite-must remain in UBS 245 AF
Sterling Ranch Onsite	371.47		Onsite-Original report
Sterling Ranch On-Site Aug Case 20 CW 3059	0.00	283.16	Onsite NNT Augmented 20 CW 3059
Off Site Water Owned and Available for use on Sterling Ranch	178.67	-178.67	Transfer to Retreat
Commit to Retreat	-16.19		
Sterling Ranch Available Supply (300 year)	533.94		
Retreat Onsite (Central System Only) **	42.76		Onsite
Commit from Sterling Ranch	16.19		Transfer from Sterling
	58.95		
<b>Total Currently Available Supply plus Retreat Water</b>	<b>592.89</b>		
Sterling Ranch Metropolitan District #1	Total AF	697.39	Available Supply Pending Case 20 CW 3059
<b>Summary of Contingent Available Supplies</b>			
McCune Off-site (under Contract)	391.33		
Pending Cases from Above	283.16	-178.67	Pending Case 20 CW 3059
Off-site Bar-X (under contract to be acquired over time)	692.60		Net Bar-X after Aug of On site Sterling Under Contract
Total Contingent Supplies	1367.10		
Sterling Ranch Metropolitan District #1	Total AF	2064.48	Total Currently Available and Contingent Water

Sterling Ranch Metropolitan District No. 1 Water Commitments

Analysis of Water Commitments						
Development	Preliminary Commitments			Final Commitments contained in prior commitment		
	Commitment SFE	Supply / Commitment Acre-Feet	Letter or Summary Date	Commitment SFE	Commitment Acre-Feet	Letter or Summary Date
Supply		Retreat Available Supply from Above			42.76	
Commitments	167	The Retreat at TimberRidge Preliminary Plan (Central System Only)	April 2018 Report Supplement Nov 2020	59 SFE 78 SFE	20.827 27.53	23-Aug-20 April 30,2021
Remaini ng Excess		Excess Supply for Retreat at TimberRidge Service Area			-16.19	
Supply		Sterling Ranch Available Supply from Legal Supply			371.47	
		Off Site Water Owned and Available for use on Sterling Ranch			178.67	
Commitments	726	Sterling Ranch Preliminary Plan Phase One	June 2015 Report/Summary Update February 2019	0	0	Tracts Only
		Sterling Ranch Filing #1		51	17.850	Summary and Letter Revised Feb 20, 2020
		Tract BB (10.545) Branding Iron at Sterling Ranch Filing No. 1		88	31.07	(includes School--13 SFE/75 Residential)
		Branding Iron Filing No. 2		49	21.59	Includes 4.29 AF Irrigation Revised Jan 21, 2021
		Sterling Ranch Filing #2 (49 SF lots with 4.29 AF landscaping)		72	25.416	
		Tract G (19.574) Homestead at Sterling Ranch Filing No. 1		104	36.712	20-Feb-19
		Tract E (29.658) Homestead at Sterling Ranch Filing No. 2		132	46.596	21-Feb-19
		Copper Chase at Sterling Ranch		496	179.234	
Commitments	214.5	Sterling Ranch Preliminary Plan Phase Two	July, 2020 Re-issue Feb 26, 2021			School commitment (13 SFE) contained in Branding Iron Filing #2 above Includes Lift Station
Commitments	147	Homestead North at Sterling Ranch Preliminary Plan		147	62.47	Letter November 4, 2020 includes 10.58 AFs irrigation Update Letter Jan 21, 2021
Excess Supply		Excess Un-committed Water Supply for Sterling Ranch Service			139.79	
Supply		The Ranch Available Supply from Above			0.00	
Commitments	0	The Ranch Preliminary Plan			0	There are no Preliminary plans yet filed in The Ranch
Remaini ng Excess		The Ranch Service Area			0.00	

General Note 1. The Sterling Ranch Metropolitan District #1 is slated to serve multiple service areas through either IGA, overlapping Districts, or bulk service. Therefore, water accounting is performed on a comprehensive basis to assure that the District has adequate resources to provide for all service. Supplies are compared above within each separate service areas because certain water rights have limited use areas.

General Note 2: Commitments are not hard commitments until Preliminary Plan, No Sketch plans are considered here

General Note 3: If a final plat/plan is included in a preliminary plan or plat that has designated a commitment, the final plat is only summed against the original committed water

\* Water derived from within the UBS cannot be applied outside the UBS without separate export order.

\*\* Tabulation and supply for Retreat Private wells is noted on Table 2 for information only, it is not included as commitment or supply for central system purposes.

# *Appendix G*

# 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		<u>Retreat at TimberRidge Filing No. 2</u>	
2. LAND USE ACTION		<u>Final Plat</u>	
3. NAME OF EXISTING PARCEL AS RECORDED		<u>N/A</u>	
SUBDIVISION	<u>See Above</u>	FILING	<u>Final</u>
BLOCK	<u>All</u>	Lot	<u>All</u>
4. TOTAL ACERAGE	<u>75.829</u>	5. NUMBER OF LOTS PROPOSED	<u>90</u>
PLAT MAPS ENCLOSED		<input type="checkbox"/> YES <u>Final Plat Separate Cover</u>	
6. PARCEL HISTORY - Please attach copies of deeds, plats, or other evidence or documentation. (In submittal package)			
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 checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
If yes, describe the previous action			
7. LOCATION OF PARCEL - Include a map delineating the project area and tie to a section corner. (In submittal)			
OF SECTION <u>27 and 28</u> TOWNSHIP <u>12</u>		<input type="checkbox"/> N <input checked="" type="checkbox"/> S RANGE <u>65</u>	
OF SECTION _____ TOWNSHIP _____		<input type="checkbox"/> E <input checked="" type="checkbox"/> W	
OF 1SECTION _____ TOWNSHIP _____			
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.			
Surveyors plat		<input type="checkbox"/> YES <input type="checkbox"/> NO	
		If not, scaled hand-drawn sketch <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <u>N/A</u>	
9. ESTIMATED WATER REQUIREMENTS - Gallons per Day or Acre Foot per Year		10. WATER SUPPLY SOURCE <u>DENVER BASIN</u>	
HOUSEHOLD USE # 1 *	<u>78</u> of units <u>24,581</u> GPD <u>27.53</u> AF	<input checked="" type="checkbox"/> EXISTING <input type="checkbox"/> DEVELOPED	<input type="checkbox"/> NEW WELLS
HOUSEHOLD USE # 2 **	<u>12</u> of units <u>3,142</u> GPD <u>3.84</u> AF	WELLS SPRING	Proposed Aquifers - (Check One)
COMMERCIAL USE #	_____ Acres _____ GPD _____ AF	WELL PERMIT NUMBERS	<input type="checkbox"/> Alluvial <input checked="" type="checkbox"/> Upper Arapahoe
IRRIGATION # ***	_____ acres _____ GPD _____ AF	<u>LFH 80131-F</u>	<input type="checkbox"/> Upper Dawson <input checked="" type="checkbox"/> Lower Arapahoe
STOCK WATERING #	_____ of head _____ GPD _____ AF	<u>Arapahoe 80132-F</u>	<input type="checkbox"/> Lower Dawson <input checked="" type="checkbox"/> Laramie Fox Hills
OTHER	_____ GPD _____ AF	<u>Individual 17CW3002 and 18CW3002</u>	<input type="checkbox"/> Denver <input type="checkbox"/> Dakota
TOTAL	<u>27,723</u> GPD <u>31.37</u> AF	<input type="checkbox"/> MUNICIPAL	<input type="checkbox"/> Other
* Household Use includes Indoor at 0.18 AF/SFE and .173 AF/SFE Outdoor Use		<input type="checkbox"/> ASSOCIATION	WATER COURT DECREE CASE NUMBERS
** The large rural lots were estimated to require 0.32 AF/unit in the 18CW 3002 augmentation plan.		<input checked="" type="checkbox"/> COMPANY	<u>08 CW-113; 08 CW -018</u>
included in SFE		<input checked="" type="checkbox"/> DISTRICT	<u>Numerous</u>
		NAME <u>Sterling Ranch Metropolitan District #1</u>	<u>Individual 17CW3002 and 18CW 3002</u>
		LETTER OF COMMITMENT FOR SERVICE	
		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
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 <u>Central Water and Sewer for 78 urban lots</u>			
<input checked="" type="checkbox"/> SEPTIC TANK/LEACH FIELD	<u>12 single family well lots</u>	<input checked="" type="checkbox"/> CENTRAL SYSTEM - DISTRICT NAME:	<u>Sterling Ranch Metropolitan District #1</u>
<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:	