Environment, Inc.

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August 1, 2023

Mr. Eric Scott
Division of Reclamation, Mining & Safety
1313 Sherman St., #215
Denver, CO 80215

Dear Eric;

RE: L.G. Everist, Inc.
West Farm Reservoirs, Permit # M-2022-048
Adequacy Response 03

On behalf of our client L.G. Everist, Inc., I will respond to your July 25, 2023 third adequacy review letter in the order and number format presented in that document.

Response to Item 23a: Please clarify that the required TR submittal for the Phase 1 slurry wall design and french drain design, as well as the required bond increase required for those activities, must be submitted by the operator and approved by DRMS - prior to commencing slurry wall installation or other mining activity associated with Phase 1 of the proposed mining plan.

L.G. Everist will commit to filing a Technical Revision prior to starting operations in Phase 1. This TR will include an estimate to increase the bond to the final operations level, and it will include the slurry wall design and french drian design for final approval prior to installing both items..

Response to item 22b: DRMS notes that the existing monitoring wells MW1 and MW2 which were previously included in the baseline water sampling plan have been removed. DRMS will require that water quality data be collected from these wells as previously specified, at least for the 5 consecutive quarters of baseline sampling. Please replace these 2 wells in the monitoring locations for baseline water quality data collection and in the provided groundwater monitoring plan and revise Exhibit G for consistency as needed.

The **Groundwater Monitoring Plan** and **Exhibit G - Water** have been revised to change monitoring wells 01 and 02 back to Water Quality Monitoring wells (WQM) for at least the first 5 quarters. Thereafter, they may revert to water level monitoring wells (WL) upon approval of the final long term water quality monitoring plan. I have included complete revised copies of the Water Quality Monitoring Plan and Exhibit G - Water. In the WQMP, the Table 2 and Map were revised. In Exhibit G, page 32 under **Water Quality** the 5th & 6th lines were changed and the revised Well Location Map was replaced.

Please also provide a commitment to submit a subsequent TR for providing the 5 consecutive quarters of baseline water sampling data, comparisons of baseline data to Regulation 41 standards, updated water level data, and proposal for long term water quality monitoring by the end of calendar 2024. If you believe additional time is required, please provide the rationale, and propose a different deadline date for submittal of this TECHNICAL REVISION

L.G. Everist will commit to filing a Technical Revision to submit the 5 consecutive quarters of water quality monitoring data, comparisons of baseline data to Regulation 41 standards, the updated water level data, and a proposal for long term water quality monitoring, prior to exposing groundwater. Since we are now in third quarter 2023 it would be nearly impossible to install 7 new monitoring wells in 4th quarter 2023. Drilling contractors are in most cases 6 months out and we do not feel it is possible to meet the tight time line you propose. Mining is not scheduled to start at this mine for a minimum of 3 years so there is plenty of time to get the wells installed and data collection started. For these reasons we request that LGE be given until the end of calendar year 2025 to file the Technical Revision to fulfill the above commitment.

Available baseline water level and water quality monitoring data will be required to be submitted with the annual report until the baseline water characterization TR is approved and long term monitoring and reporting requirements are finalized – please acknowledge or include in the response to this item.

L.G. Everist will commit to filing baseline water level and water quality monitoring data with the annual reports until the baseline water characterization TR is approved.

DRMS will accept the applicant's request to leave MW9 out of the proposed water quality sampling locations

Thank you

DRMS is currently evaluating the provided reclamation bond calculation for the initial processing area and settling ponds.

We have reviewed the Circes Bond analysis and agree that the acreages and volumes match our estimate but that the unit costs used by Circes is larger then our estimates. That leaves little to discuss, we understand the discrepancies between the two estimates and request the amount, be rounded to the closest hundred dollars to make it an even number.

I hope these responses have addressed the adequacy questions you had. If you have any more questions please call.

LIST OF ATTACHMENTS TO THIS RESPONSE:

Exhibit G - Water - revised

- Map Exhibit G-1 - Wells - revised
- Groundwater Monitoring Plan - revised

Sincerely,
Environment, Inc

Stevan L. O'Brian
President

cc L.G. Everist, Inc.
Weld County Clerk
file

enclosures

by the South Platte River, road corridor and the single irrigation return flow ditches surrounding the lined area. These existing water features will serve to regulate and balance groundwater elevations in the alluvium adjacent to the sealed pits. The GWM suggests that once the groundwater reaches the maximum predicted levels it will stabilize and the corridors left through and around the liners will allow water to pass around the liners.

The operator does not anticipate any long-term post-reclamation ground water depletions, but if there are any, they would be replaced through a Colorado Water Court approved Plan of Augmentation.

L.G. Everist, Inc. expects that prior to competition of the reservoirs a local government agency will purchase the storage rights and may begin final construction on the reservoirs. As water storage reservoirs are completed, they will be turned over to the purchaser for further development to complete the final features needed for developed water storage reservoirs. L.G. Everist will submit Technical Revisions to the DRMS if the purchaser makes changes prior to L.G. Everist receiving final reclamation approval and acreage releases from the Division.

Water Quality

The attached report prepared by Molen Associates explains the plan for collecting the necessary background water quality information of the permit area. Included is a list of the chemicals to be tested for and their frequency. This plan includes installing 6-7 additional monitoring wells around the mine and will use 8 4 ~~existing~~ wells that lay outside the proposed slurry walls to collect the data needed for 5 quarters prior to mining and yearly testing ~~as needed~~. Once the 5 quarterly samples are collected and analyzed a Technical Revision may be filed to reduce the required monitoring list for the life of the mine.

Discharge Permits Surface Water Management

When necessary, ground water will be pumped and discharged from the West Farm Reservoirs mine under a CDPS Permit which the operator will obtain from the Colorado Department of Public Health and Environment, Water Quality Control Division (CDPHE-WQCD). This permit will remain active during the life of the mine. The discharge points may change as mining progresses and all necessary changes will be submitted to the WQCD for modifications to the discharge points.

Runoff from disturbed areas will be managed and controlled to protect against pollution, of either surface or groundwater through the implementation best management practices which in-

WATER INFORMATION

Introduction

The site is located about 1.5 miles west of Platteville, Colorado. Please refer to **EXHIBIT B - VICINITY MAP** for the property configuration and the relationships to surrounding geological features. The site is bordered on the south, west and northwest sides by irrigated agricultural lands and on the east and part of the northeast side by the South Platte River. There are 2 irrigation return flow ditches that cross the property and other onsite temporary agricultural feeder ditches that carry water to the fields being irrigated. Two center pivot irrigation systems are fed by wells owned by L.G. Everist, Inc. There are 7 registered irrigation wells, one domestic well and 6 piezometers on the property. Within 200 feet or the permit line there is 1 Domestic and one Geothermal wells located in the southwest corner of the site.

Based on regional groundwater studies and the experience gained by L.G. Everist, Inc. during numerous previous permit applications they have found that slurry wall liners mitigate any impacts to groundwater on nearby areas surrounding a lined reservoir. Ground water in this area tends to flow from the west towards the river, the depth to water on the flood plane level averages 3.55 feet below the surface and along the western terrace deposit the depth to the water table is 19.5 feet. Data for the monitoring well information collected thru the month of submittal is shown on **TABLE G-2 ON SITE GROUND WATER MONITORING DATA.** If any significant groundwater changes do occur, they can be mitigated as discussed below.

In May 2023 a Groundwater Model (GWM) was prepared by Schnabel Engineering to provided potential impact information of the ground water levels by installing Slurry Wall liners around the reservoirs. That report is provided at the end of this exhibit. In addition, Molen and Associates was asked to prepare a Water Quality Monitoring Plan for the permit area. That plan is also included in this exhibit. These reports are used in the following text to establish the mitigation and testing plans for the West Farms Reservoirs mine.

The mining operation will have minimal effect on the South Platte River in the form of minor groundwater depletions due to evaporation and water uses associated with mining. The depletions to the South Platte will be mitigated thru a temporary Substitute Water Supply Plan (as required and approved by the Division of Water Resources) to prevent injury to vested senior water rights.

The reclamation plan proposes the creation of 4 slurry wall, lined reservoirs that will not be hydraulically connected to the South Platte River or any alluvial aquifer. The reservoir areas will be sealed prior to mining, thereby eliminating the groundwater draw down which is typically associated with mine site dewatering. This will also eliminate or minimize the possibility of any adverse impacts to the single nearby alluvial well.

Potential Water Resource Impacts

Ground Water Wells

We expect this mining operation will have no or minimal impacts on the prevailing hydrologic balance. Sand and gravel mining related impacts to groundwater wells near the pit will be mitigated through the installation of slurry walls around the perimeter of new reservoir mining phases prior to the start of dewatering in each reservoir Phase (see **EXHIBIT D - MINING PLAN**).

TABLE G-1 WATER WELLS WITHIN 200 FEET is a list of 12 wells from the Office of the State Engineer's files that are located within 200 feet of the permit area. (*NOTE: THE WELL PERMIT LOCATION SHOWN IN THE TABLE HAVE BEEN GPS LOCATED BY THE STATE ENGINEERS OFFICE'S AND GROUND VERIFIED*). All wells except the geothermal well (Blue highlight) are shallow wells, at this time, there is one shallow well within 200 feet of the permit area that is not owned by L.G. Everist, Inc. The Palombo domestic well is located near the southwest corner and is up gradient from the mining area. LGE owns the 8 wells listed for Norgren Farms and is in the process of filing a name change. There are 2 monitoring wells along WCR 32.5 owned by Metro Wastewater Reclamation District, the eastern most one is more than 6oo feet from the permit line.

Prior to exposing groundwater or installing a slurry wall liner in any Phase, a well survey will be performed on any shallow wells within 200 feet of the phase. Wells that are located within 200 feet of the permit area, that do not need to be tested are(a) owned by L.G. Everist, Inc., (b) monitoring wells, (c) deep wells, because deep wells will not be affected by potential surface impacts due to mining. L.G. Everist will attempt to obtain for each shallow well to be tested the following data:

- Basic Well construction data that is currently available.
- Total well depth
- Depth to static water level,
- Depth of pump intake
- Conduct pump test to determine well yield (subject to DWR Regulations)
- Conduct analytical sampling of all Domestic Drinking Water parameters for any residential wells.

All data collection will be completed at L.G. Everist's expense. Data will be provided to DRMS and the well owner upon their request. If a well owner chooses not to allow the permittee

access to collect the above data, they will be provided with a form that they can sign and date to document that they have been provided with an opportunity to have their well characterized at the permittee's expense, but have chosen to decline to participate.

L.G. Everist, Inc. has installed 6 piezometers (a.k.a. Monitoring Wells) around the mine and plan to install an additional 6 wells to collect more groundwater elevation data and be used for water quality monitoring and research. Their locations are shown on the maps and on **MAP EXHIBIT G-1 WELL MAP**. L.G. Everist started data collection in July 2019 and will do monthly depth readings throughout the life of the mine. We will provide a summary of the data yearly with the Annual Report.

Mitigation Trigger

Starting in July 2019, L.G. Everist, Inc. began to collect groundwater elevations from newly installed monitoring wells on and around the mine area to establish historic ground water elevations around and on the site. The period July 2019 until installation of the Phase 1 liner will be used as the baseline for triggering mitigation actions. This way the baseline data needed for the areas are in place well before installation of the slurry walls will begin.

The permit area has two areas where the depth below ground level area vastly different. The dividing line between these land features is a natural bank where the river valley transitions from the flood plain on the east side to the upland area along the west side. In the eastern area, Phases 1 and 2, the natural groundwater depths vary from 2.9 to 4.4 feet, average 3.5 ft. below the surface. On the western areas, Phases 3 and 4, the natural groundwater depths vary from 16.7 to 23.9 feet, average 19.5 ft., below the surface between June 2019 and October 2022. These ground water depths and averages may change prior to mining commencing.

The important area for mitigation lies along the eastern section of the south line or area along the Abbett Farms land. Along this line the average depth to ground water varies from 7.2 on the west to 4.4 feet below the surface at MW #7, near the river. This covers a section approximately 1860 feet west of the river. The mitigation plan is designed for this area as it could likely be the most impacted if there was a significant increase to the groundwater elevations due to mounding. The model predicts that the potential mounding affect would vary from as much as 2.5 feet on the west end of this strip to approximately 1 foot at the eastern corner of the slurry wall on the east. It also indicates that if needed, a simple perforated pipe, 12 inches in

diameter would be capable of regulating the groundwater to historic elevations. L.G. Everist will commit to installing said under drain along the above referenced section during slurry wall construction in that area. Once final design of the under drain is complete and prior to installation a Technical Revision will be filed with the Division for approval.

In this mitigation trigger plan, the trigger limits will be set at as a two (2) foot plus or minus change over a 3-month running average. Because the average groundwater levels are already close to 4 feet from the surface in the southeast corner of Phases 1, limiting the maximum rise before mitigation to 4.0 feet is too restrictive. The data collected to date shows the historic high to low swing is much as 1.44 feet up or downward possibly due to outside impacts such as, drought, storm events or decreased irrigation. A 2 foot increase over 3 month running averages will keep the minimum depth to below the 24 inches cover level required by the SEO exposed ground water requirements. As for the shadowing effect of the slurry walls, we do not expect this to be a problem where the slurry walls are in close proximity to a flowing water body like the irrigation return flow ditch that bisects the mine site north to south and the South Platte River along the east and north sides. The Groundwater Model confirms that any shadowing or mounding along the river will only affect the property owned by L.G. Everist and will not cross over the river.

If during the course of mining or reclamation complaints from the well owner or adjacent property owners are received by the permittee, the permittee will commence an evaluation and investigation, including providing replacement water to the well owner if necessary, within 48 hours. The method used to mitigate groundwater mounding may include a ground water drain along the Abbett property to maintain ground water elevation to the average level measured prior to installation of the slurry wall liner. This drain may be in the form of a ditch or a buried perforated pipe as described in the GWM. DRMS shall be notified within two business days of the complaint and the proposed initial steps for the evaluation of the complaint. A written report will be submitted to DRMS within 30 days detailing the information collected during the investigation of the complaint, and proposed mitigation activity, if required.

Post Reclamation

Any slight groundwater mounding and shadowing associated with the slurry wall sealed portions of the pit are not anticipated to produce any adverse impacts to adjacent properties. Potential groundwater mounding around the mine will be mitigated

by the South Platte River, road corridor and the single irrigation return flow ditches surrounding the lined area. These existing water features will serve to regulate and balance groundwater elevations in the alluvium adjacent to the sealed pits. The GWM suggests that once the groundwater reaches the maximum predicted levels it will stabilize and the corridors left through and around the liners will allow water to pass around the liners.

The operator does not anticipate any long-term post-reclamation ground water depletions, but if there are any, they would be replaced through a Colorado Water Court approved Plan of Augmentation.

L.G. Everist, Inc. expects that prior to competition of the reservoirs a local government agency will purchase the storage rights and may begin final construction on the reservoirs. As water storage reservoirs are completed, they will be turned over to the purchaser for further development to complete the final features needed for developed water storage reservoirs. L.G. Everist will submit Technical Revisions to the DRMS if the purchaser makes changes prior to L.G. Everist receiving final reclamation approval and acreage releases from the Division.

Water Quality

The attached report prepared by Molen Associates explains the plan for collecting the necessary background water quality information of the permit area. Included is a list of the chemicals to be tested for and their frequency. This plan includes installing 7 additional monitoring wells around the mine and will use 8 wells that lay outside the proposed slurry walls to collect the data needed for 5 quarters prior to mining and yearly testing. Once the 5 quarterly samples are collected and analyzed a Technical Revision may be filed to reduce the required monitoring list for the life of the mine.

Discharge Permits Surface Water Management

When necessary, ground water will be pumped and discharged from the West Farm Reservoirs mine under a CDPS Permit which the operator will obtain from the Colorado Department of Public Health and Environment, Water Quality Control Division (CDPHE-WQCD). This permit will remain active during the life of the mine. The discharge points may change as mining progresses and all necessary changes will be submitted to the WQCD for modifications to the discharge points.

Runoff from disturbed areas will be managed and controlled to protect against pollution, of either surface or groundwater through the implementation best management practices which in-

clude sloping disturbed areas inward toward the site, vegetating berms and other disturbed areas, and other site-specific controls as needed. As per the State Engineers Office requirements all stormwater collected for treatment will be discharged within 72 hours after the storm event ends.

Estimated Consumptive Water Use

The annual consumptive uses of water for the West Farms Reservoirs mine are estimated to be:

USES	VOLUME Acre-feet
4% Moisture Loss in Materials (1.7 Million tons)	50.05
Dust Control	3.00
Water Surface Evaporation (10 ac)	23.80
Total Consumption (Augmented)	76.85

Substitute Water Supply Plan

Ground water depletions associated with L.G. Everist's West Farm Reservoirs operation will be covered under a substitute water supply plan (SWSP) pursuant to C.R.S. 37-90-137, approved by the State Engineer's Office (SEO) for replacement of the ground water depletions due to mining. This plan will be updated and renewed every 2 years.

The Applicant will maintain a SWSP throughout the life of the mine. After completion and reclamation of all lined reservoirs there will be no long-term evaporative depletions.

However, if any unlined open surface water areas created by mining remain at the end of reclamation, then a court approved augmentation plan will be applied for before reclamation is complete.

100-Year Floodplain

Portions of the West Farm Reservoirs mine are located within the 100-year floodplain of the South Platte River. The applicant will obtain a Flood Hazard development Permit from the Town of Platteville if needed. The location of the 100-year flood line shown on the affected lands was transferred from FIRM Panel 08123C1905E, effective 1/20/16 to all maps.

TABLE G-1 WEST FARM RESERVOIRS - WATER WELLS WITHIN 200 FT

Receipt	Permit Number	Contact Name	Section	Q40	Q160	Latitude	Longitude	Permit Category	Use(s)	Completed Well Depth	Perforated Casing Top	Perforated Casing Bottom	Static Water Level	Static Water Level Date	WDID	Associated Case Numbers
	SE/4-Sec 10-3N-67W	None within 200 feet.														
	SW/4-Sec 11-3N-67W	None within 200 feet.														
	SE/4-Sec 11-3N-67W	None within 200 feet.														
	NW/4-Sec 13-3N-67W	None within 200 feet.														
	SW/4-Sec 13-3N-67W															
9063639	264636-	METRO WASTEWATER RECLAMATION DISTRICT	13	NW	SW	40.2252	-104.848492	Monitoring Observation (greater then 600 ft)	Monitoring/ Sampling	25	15	25				
	Sec 14-3N-67W															
19112	15331-R	L.G. Everist, Inc (NORGREN FARMS)	14	SW	NW	40.228169	-104.867362	General Purpose	Irrigation	76					207463	W5677
89066	264638-	METRO WASTEWATER RECLAMATION DISTRICT	14	SW	NE	40.225342	-104.854051	Monitoring Observation	Monitoring/ Sampling	20	10	20				
256734	96398-A	L.G. Everist, Inc (NORGREN FARMS)	14	NW	SW	40.224885	-104.863161	Residential	Domestic	41	21	41				
353828	15335-R	L.G. Everist, Inc (NORGREN FARMS)	14	NE	SW	40.223387	-104.861225	General Purpose	Irrigation						207469	W5677
0353828A	15337-R	L.G. Everist, Inc (NORGREN FARMS)	14	SW	SE	40.219348	-104.851678	General Purpose	Irrigation	30	10	30			207471	W5677
366352	15332-R	L.G. Everist, Inc (NORGREN FARMS)	14	SW	SW	40.249732	-104.8635	General Purpose	Irrigation						207466	W5677
0541454C	15333-R	L.G. Everist, Inc (NORGREN FARMS)	14	SE	SW	40.218136	-104.860603	General Purpose	Irrigation	53					207467	W5677
9062188	15334-R	L.G. Everist, Inc (NORGREN FARMS)	14	SE	SW	40.2184	-104.857769	General Purpose	Irrigation						207468	W5677
9062189	15336-R	L.G. Everist, Inc (NORGREN FARMS)	14	SW	SE	40.220489	-104.856153	General Purpose	Irrigation	35					207470	W5677
	NE/4-Sec 15-3N-67W	None within 200 feet.														
	SE/4-Sec 15-3N-67W	None within 200 feet.														
	NE/4-Sec 22-3N-67W	None within 200 feet.														
	NW/4 Sec 23-3N-67W															
9058770	304711-	PALOMBO, Jeff (MAGNESS LAND HOLDINGS)	23	NW	NW	40.217618	-104.866466	Residential	Domestic, Stock	75			20	4/26/2017		
9058772	91-GX	PALOMBO, JEFF	23	NW	NW	40.217753	-104.866008	Geoexchange System Loop Fields	Geothermal	300						
	NE/4-Sec 23-3N-67W	None within 200 feet.														
	NW/4-Sec 24-3N-67W	None within 200 feet.														

updated 8/23/2022 slo

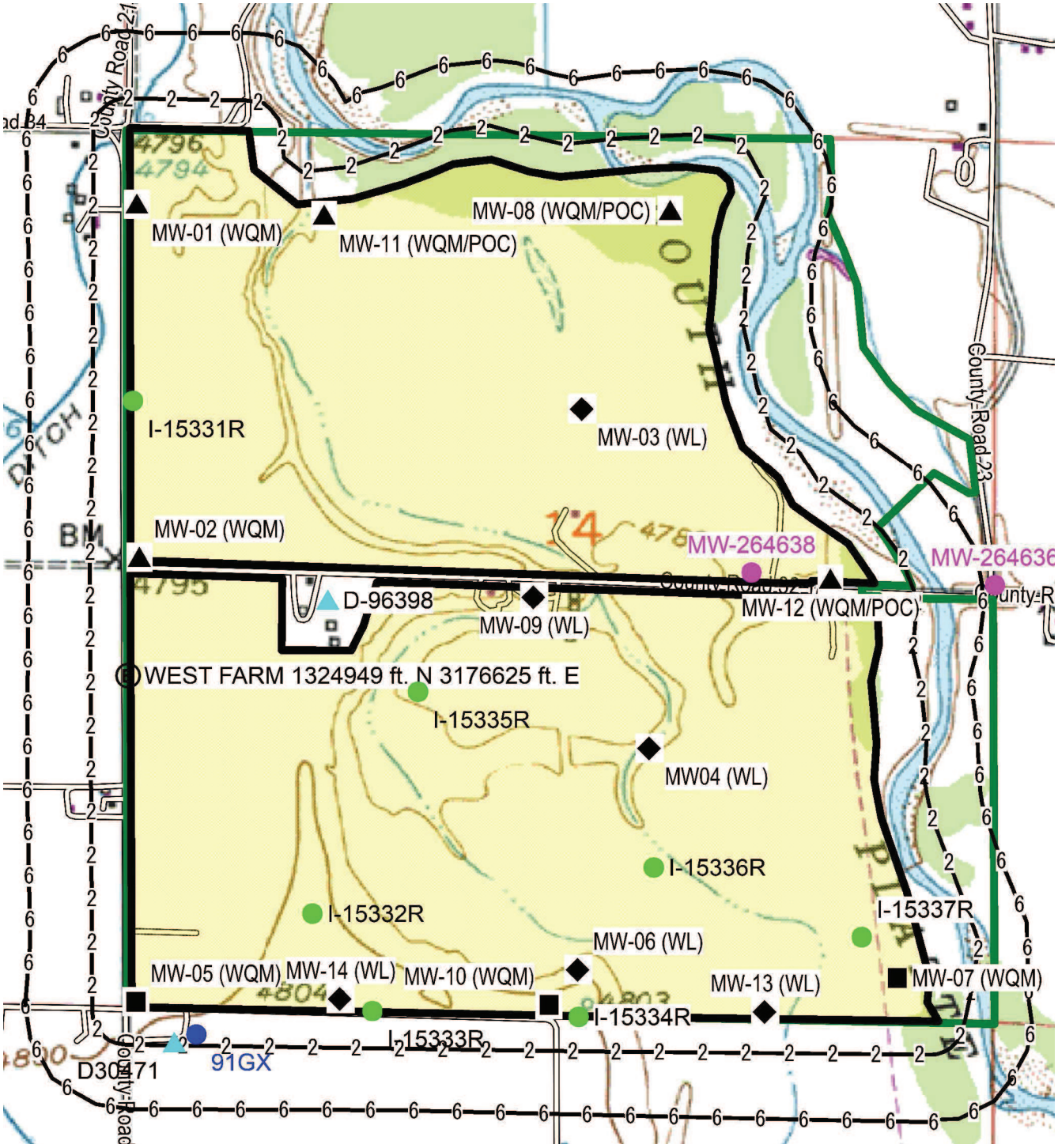
	MONITOR WELL NO.	MW 1	MW 2	MW 03	MW 04	MW 05	MW 06	MW 07
	NORTHING, FT	1,327,768.61	1,325,656.48	1,326,568.90	1,324,539.64	1,322,997.25	1,323,208.40	1,323,173.33
	EASTING, FT	3,176,657.95	3,176,688.06	3,179,344.23	3,179,763.21	3,176,684.67	3,179,342.95	3,181,259.32
	ELEVATION (TOG), FT	4,799.803	4,801.272	4,779.160	4,782.169	4,804.36	4,802.13	4,791.08
	CASING HEIGHT, FT	3.57	3.97	3.74	3.24	3.62	3.02	3.29
	ELEVATION (TOC), FT	4,803.368	4,805.242	4,782.900	4,785.409	4,807.98	4,805.15	4,794.38
	Adjusted	(D08-D05)						
2019	7/10/2019	23.13	19.66	2.48	2.41	15.22	16.98	2.93
	8/7/2019	23.37	18.03	3.20	1.75	14.12	16.85	4.36
	9/10/2019	23.46	18.45	2.98	2.57	14.58	16.76	4.36
	10/8/2019	23.92	19.16	3.01	2.63	15.40	16.87	4.35
	11/7/2019	24.15	20.01	3.04	2.81	16.56	17.23	4.21
	12/10/2019	24.25	20.65	3.21	2.96	17.52	17.61	4.06
2020	1/13/2020	24.31	20.97	3.24	3.11	18.23	17.86	4.31
	2/11/2020	24.31	21.16	3.76	3.16	18.30	17.91	4.26
	3/17/2020	24.21	20.93	3.99	3.11	17.43	17.72	4.16
	4/29/2020	24.15	20.83	3.76	3.18	17.68	17.78	4.91
	5/29/2020	23.95	20.18	3.41	3.12	16.25	17.52	4.64
	6/25/2020	23.85	19.68	3.14	2.81	16.01	17.24	4.07
	7/20/2020	23.25	18.28	3.28	2.61	16.21	16.81	4.53
	8/20/2020	23.60	17.41	3.45	4.56	12.89	16.65	4.81
	9/30/2020	23.62	18.65	3.45	2.68	16.12	16.72	4.63
	10/29/2020	23.64	19.52	3.24	2.76	14.39	16.89	4.60
	11/18/2020	23.88	20.05	3.25	2.87	16.73	17.34	4.05
	12/18/2020	24.04	20.55	3.11	3.05	16.60	17.71	4.21
2021	1/14/2021	24.29	20.89	3.25	3.17	18.40	17.80	4.60
	2/22/2021	24.92	21.38	4.05	3.36	19.07	17.97	5.27
	3/9/2021	24.51	21.41	3.56	3.16	19.26	17.96	4.28
	4/26/2021	24.31	21.22	3.74	3.21	18.53	17.77	4.52
	5/25/2021	23.87	20.67	3.44	2.98	17.37	17.53	4.22
	6/21/2021	23.83	20.22	3.17	2.57	16.67	17.26	3.89
	7/19/2021	23.20	17.39	3.24	2.64	13.43	16.76	4.47
	8/9/2021	22.95	20.22	3.20	2.56	12.59	16.65	4.05
	9/17/2021	22.89	17.48	3.49	2.73	13.61	16.69	4.63
	10/12/2021	23.62	18.80	3.35	2.67	14.52	16.72	4.25
	11/22/2021	23.89	19.97	3.19	2.78	16.71	17.27	4.46
	12/2/2021	23.95	20.17	3.14	2.90	17.05	17.39	4.12
2022	1/20/2022	24.99	21.15	4.08	3.42	18.43	17.87	5.26
	2/9/2022	24.66	21.34	3.54	3.14	18.86	17.80	4.40
	2/27/2022	24.72	21.19	3.50	3.27	18.65	17.86	4.88
	3/4/2022	24.48	21.16	3.70	3.17	18.57	17.82	4.43
	4/19/2022	24.76	21.37	3.98	3.36	18.42	17.93	5.33
	5/17/2022	24.80	20.85	3.88	3.20	16.92	17.63	4.92
	6/13/2022	24.03	20.11	3.20	2.75	16.67	17.17	4.00
	7/26/2022	23.54	17.75	3.19	2.56	13.24	16.86	4.62
	8/30/2022	23.23	17.53	3.03	2.52	12.25	16.72	4.23
	9/30/2022	23.58	17.90	3.12	2.68	13.62	16.72	4.70
	10/24/2022	23.74	19.04	3.21	2.87	14.46	17.04	4.61
	11/22/2022	23.86	19.73	3.30	2.93	15.78	17.28	4.51
	12/21/2022	23.98	20.43	3.35	3.01	17.18	17.50	4.36
2023	1/11/2023	24.24	20.63	3.50	3.11	17.88	17.68	4.61
	2/16/2023	24.48	21.03	3.65	3.26	18.63	17.86	4.91
	3/8/2023	23.93	21.03	3.45	3.01	18.68	17.78	4.41
	MEAN DEPTH TO WATER	23.94	20.20	3.29	2.95	16.69	17.37	4.42
	MAX. DEPTH TO WATER	24.99	21.41	4.08	4.56	19.26	17.97	5.33
	MIN. DEPTH TO WATER	22.89	17.39	2.48	1.75	12.25	16.65	2.93
	NET CHANGE	2.10	4.02	1.60	2.81	7.01	1.32	2.40

average depths		
	terrace wells	19.55
	FP wells	3.55

L.G. Everist, Inc.

WEST FARM RESERVOIRS

Map Exhibit G-1 - Water Wells Within 200 feet



NOTES

1. Data for wells shown on this map are listed on Table G-1 and is from the State Engineer records.
2. Well locations shown on the map are confirmed via ground check.
3. All wells except the Geothermal (GX) well are shallow wells.
4. Proposed new WQM well locations shown on map may change when installed.

WELL KEY

- Verified Irrigation Well
- Domestic Wells
- Geothermal Well
- Site Monitoring Well
- WQM Well
- WQM/POC Well
- Third Party Monitoring Well
- 2 2 — 200 FT. Offset
- 6 6 — 600 FT. Offset

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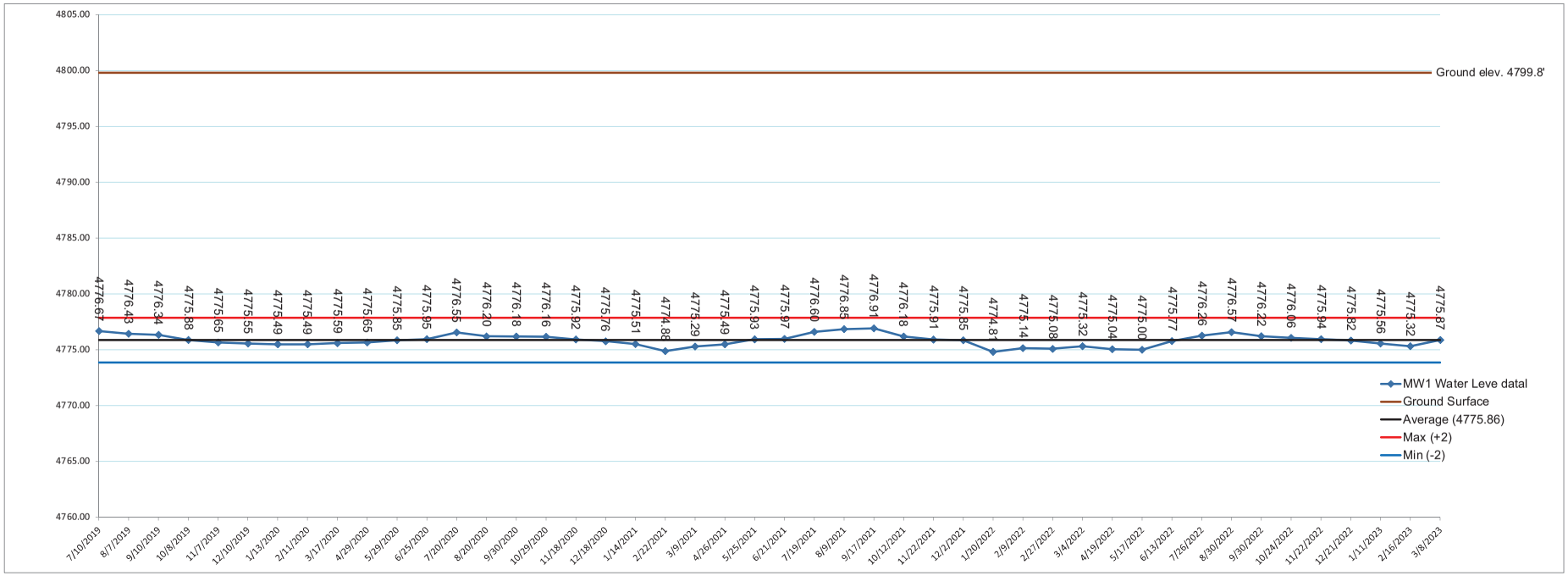
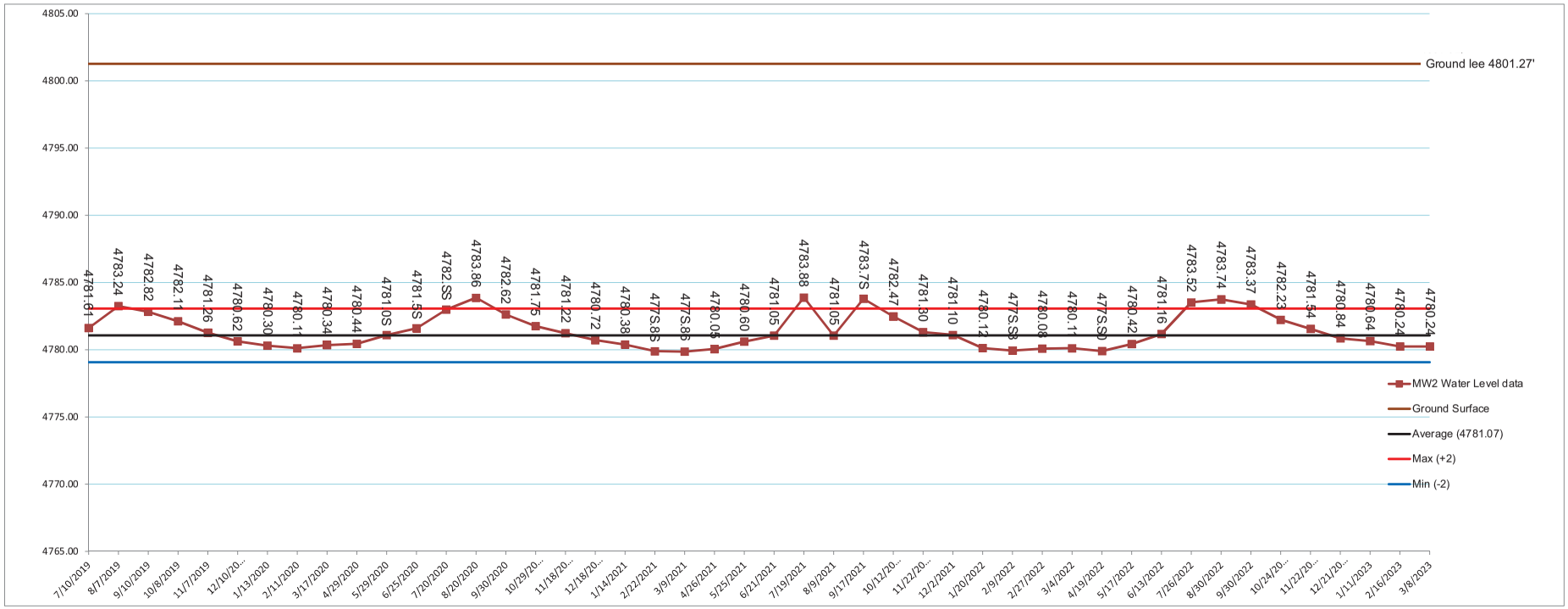


WEST FARM RESERVOIRS MW #1



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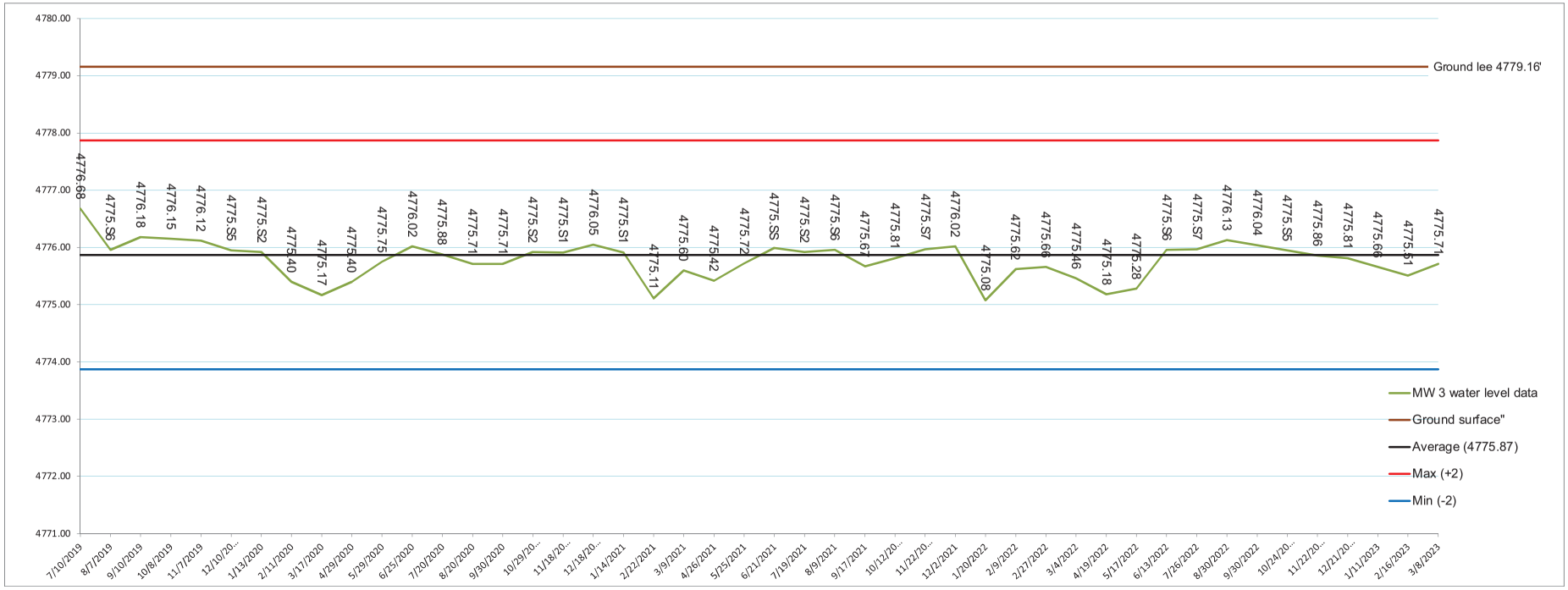

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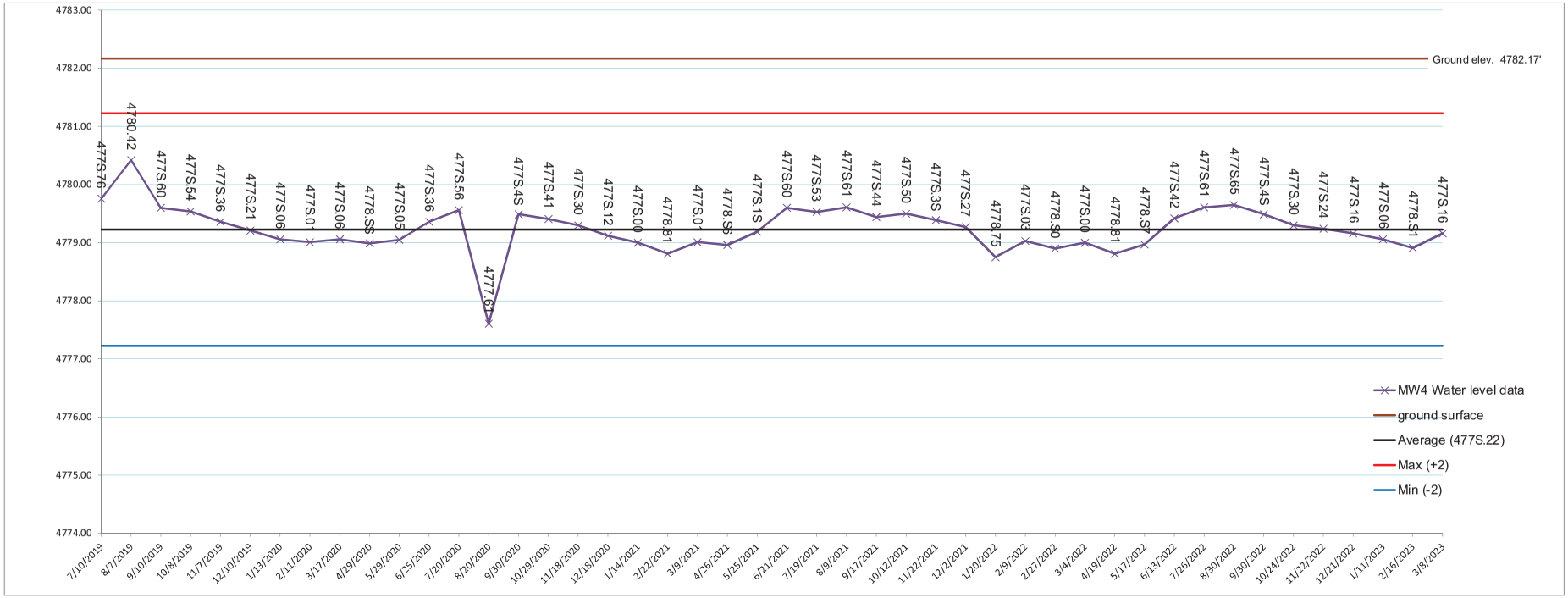

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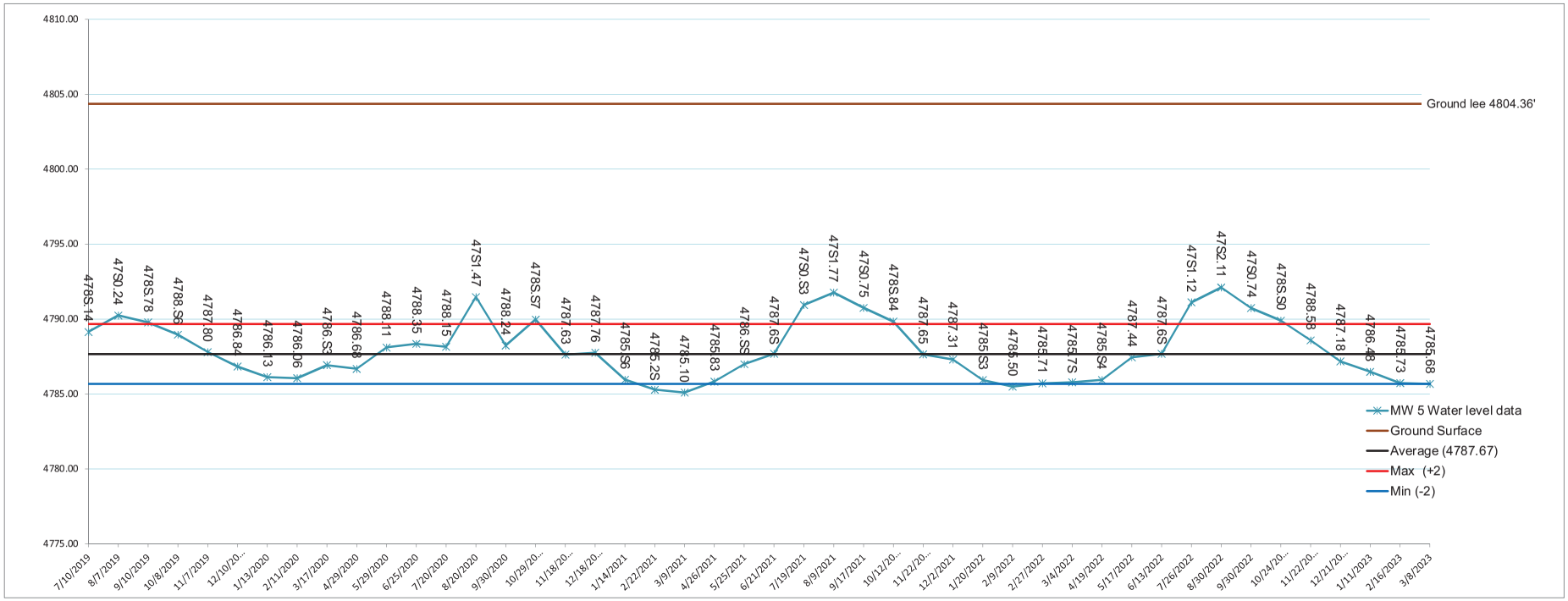

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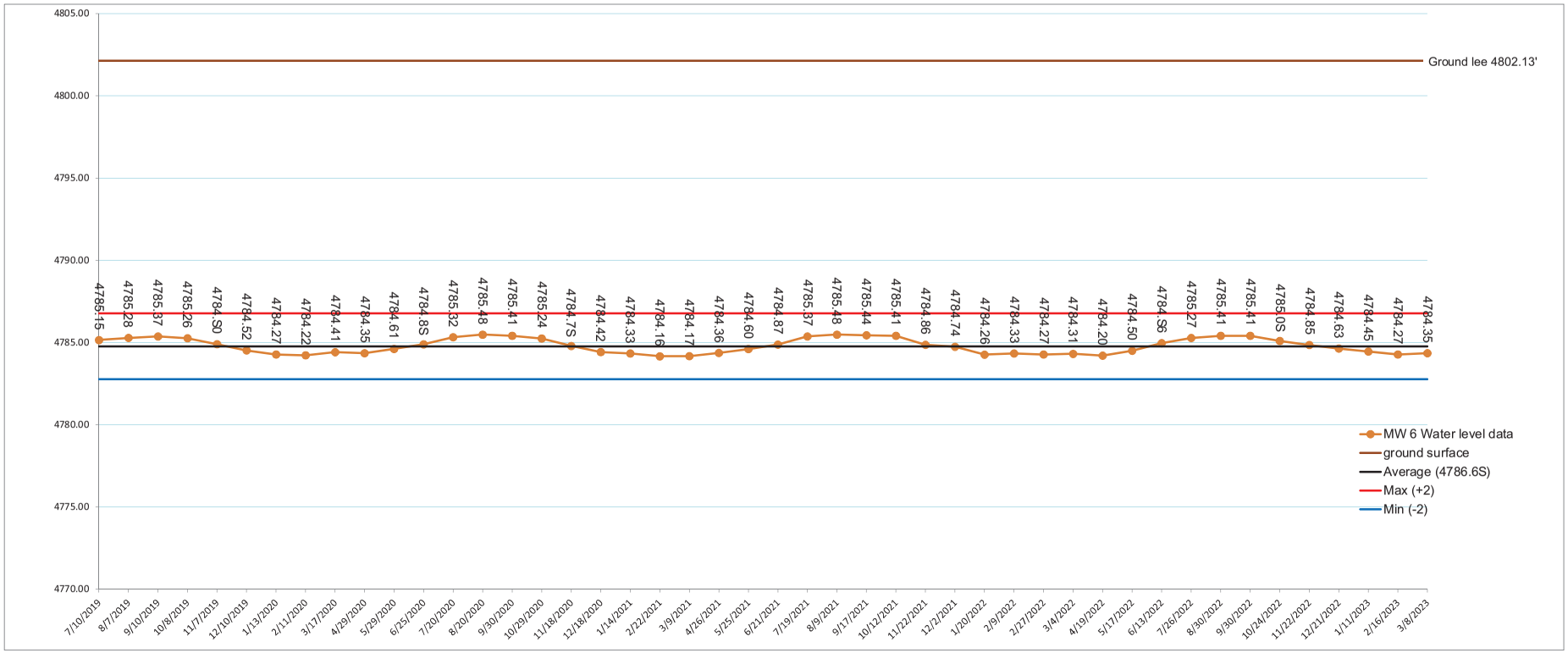

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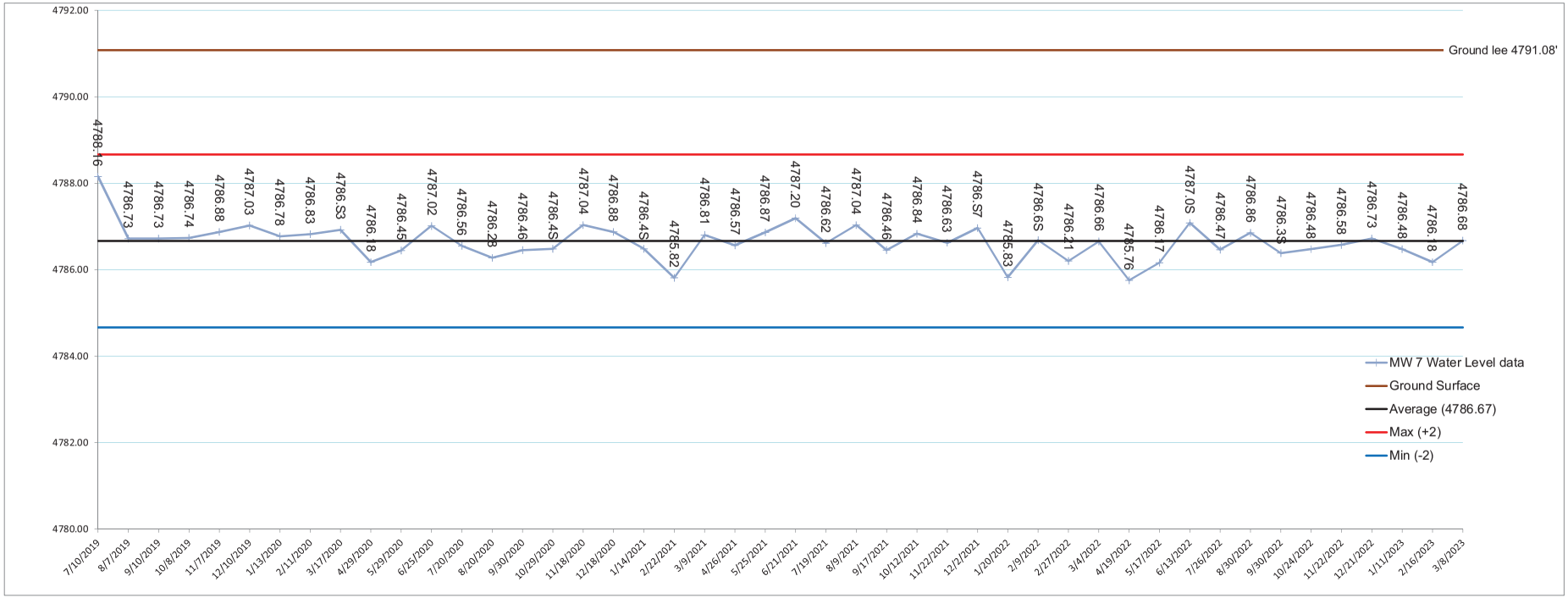
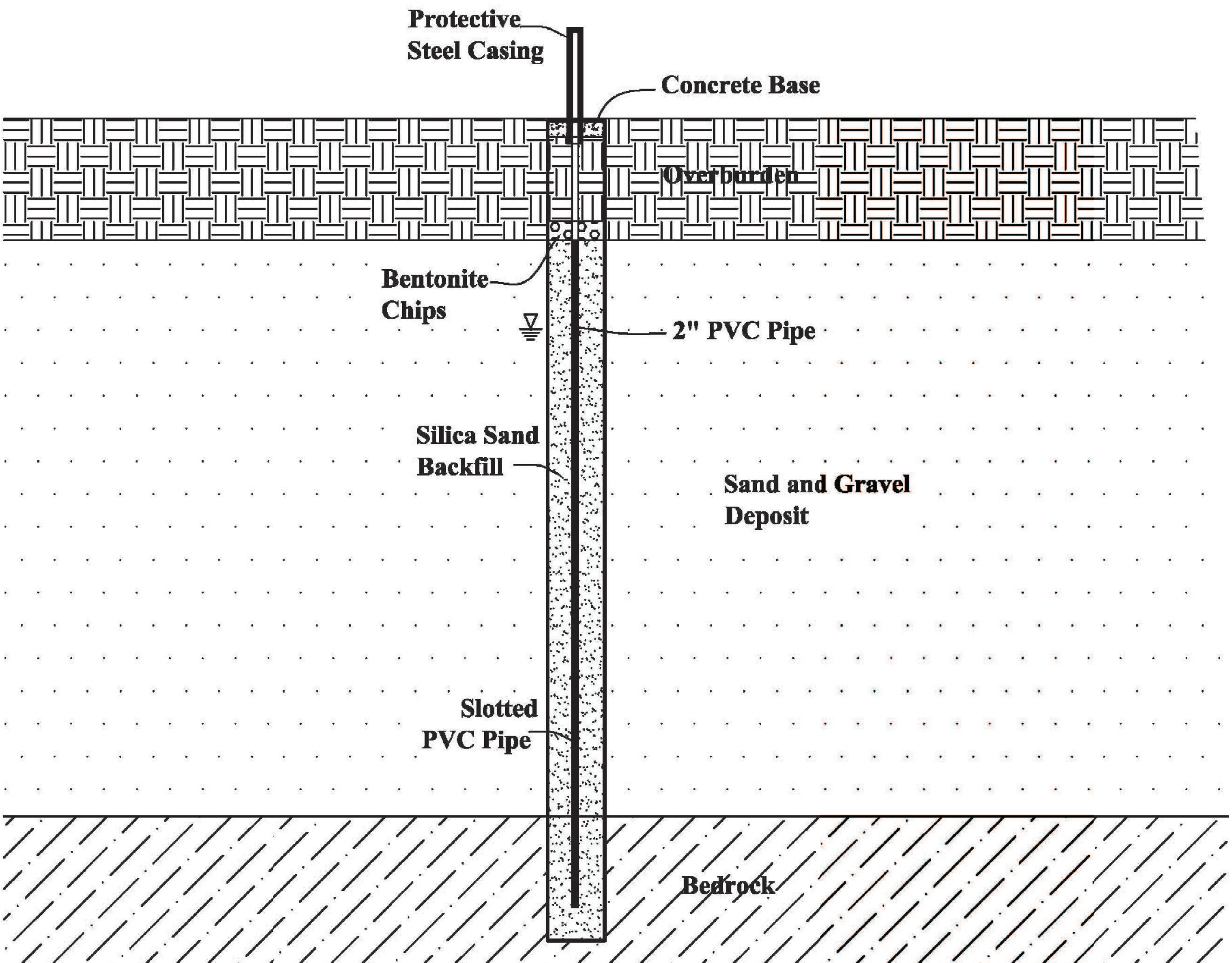


WEST FARM RESERVOIRS MW #7



REV. #	BY	DATE	DESCRIPTION
A	–	–	–

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DATE: 3/2010
SCALE: NA
CAD FILE:

L.G. Everist, Inc.
Aggregate Producers

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Typical Monitoring Well Installation

Groundwater Monitoring Plan

LGE - West Farm

10482 County Road 32.5

Platteville, CO

Prepared for:
L.G. Everist, Inc.
7321 E 88th Avenue, Suite 200
Henderson, CO 80640

July 29, 2023

Prepared by:
Molen & Associates, LLC
2090 E 104th Ave, Unit 101
Thornton, CO 80023

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1.0 INTRODUCTION

LG Everist, Inc is planning to mine aggregate resources from the West Farm property as outlined in the mining permit. The LG Everist, Inc West Farm site, hereinafter referred to as LGE-WF site, has applications for approval of the mining permit. In the LGE-WF site plans, detailed descriptions of the physical geography, geology and hydrogeology have been made.

The purpose of this Groundwater Monitoring Plan (GWMP) is to assess the potential of the introduction of pollutants into the groundwater during mining activities and to describe the program to assess if and how water quality may change over time. The plan also provides information about the collection of water level measurements to show water level changes over time.

A separate Groundwater Sampling Plan GSP) is prepared and describes groundwater sampling procedures, sample handling, and laboratory analysis. This GWMP will designate what data is collected and how it may be interpreted and may be modified as the mining activities progress and new information arises or changes. The GSP presents the sampling methods used to obtain the groundwater samples. Both the GWMP and the GSP will be followed for all groundwater monitoring done at the LGE-WF site.

The Division of Reclamation, Mining and Safety (DRMS) calls for a GWMP for the LGE-WF site for the mining permit. Existing groundwater wells have been used to measure water levels over the past two years. The groundwater well locations, to be used for water level measurements and groundwater quality sampling, are shown on Figure 1, Map Exhibit G-1 – Water Wells Within 200 Feet and are shown on other maps in the mining permit plans. Survey data for the existing wells is in Table 1. Some of these wells on the LGE-WF site will be used to obtain baseline groundwater quality data for the LGE-WF site. Additional groundwater monitoring wells are also planned as shown in Figure 1 and described in Table 2.

Groundwater monitoring wells are generally in locations that will not be mined or will not be mined in the near future. New wells or replacement wells will be placed in the general area of the existing well and be installed to monitor the same water bearing zone.

2.0 MONITORING PLAN COMPONENTS

The current groundwater monitoring well locations are shown in Figure 1. The well monitoring network includes fourteen wells all completed in the uppermost aquifer. A few of the existing groundwater monitoring wells are in areas that will be mined. These wells will not be used for groundwater quality monitoring and will be removed and abandoned in the future. Monitoring wells are located in up-gradient and down-gradient

positions in the alluvium. Additional monitoring wells may be included in the future as necessary, or in response to regulatory concerns.

Water quality monitoring sampling will begin within the next quarter following regulatory approval or consensus from DRMS. As proposed, the data collected will be used to develop a baseline of data for which future comparisons can be made. Once the baseline data collection is completed, then future water quality samples collected from points downgradient of the mining operations can be used to assess potential changes in water chemistry that might cause overall changes in water quality downstream.

Baseline data will be collected from each monitoring well designated as a groundwater quality monitoring well. Some groundwater wells will only be used to collect water level information (piezometers).

2.1 Monitoring Well Site Selection

The Rationale for monitoring well placement is presented in Table 1. Figure 2 presents a groundwater elevation contour map that was constructed from water level data obtained from the existing monitoring wells. The average (mean) groundwater level was used to construct the groundwater elevation contour map. The groundwater levels generally followed the topographic gradient, with water flowing generally from a west-southwest and south direction to a north and northeast direction.

All of the wells are (or will be) completed with a 2-inch diameter PVC casing and screen. Typically, the wells are constructed with screening across the entire water bearing zone, with solid piping to the surface completion. A sand pack of natural or washed sand is placed from the base of the well to one foot above the screened interval. A locked metal casing will cover the PVC casing from a concrete pad installed at the ground surface. The tops of the monitoring well will be encased in a lockable metal casing. Figure 3 presents a typical monitoring well installation and construction.

Three new groundwater monitoring wells (MW-08, MW-11, MW-12) will be installed as the downgradient water quality sampling points. These three downgradient water monitoring wells are considered point of compliance (POC) wells. Other wells may be installed as needed. All wells are, and will be, permitted with the State Engineers Office (SEO) Division of Water Resources All wells are and will be constructed (and abandoned) according to the SEO standards.

2.2 Water Level Monitoring

Water level measurements will be made in accordance with this monitoring evaluation plan. All monitoring wells will have water level measurements on a monthly basis. Exiting wells and future wells are constructed in accordance with the typical water

monitoring well instillation diagram in Figure 2. Water level measurements collected in concert with water quality sampling will serve as quarterly water level measurements for the purposes of this monitoring evaluation plan.

2.3 Water Quality Monitoring

L.G. Everest commits to obtain the water quality samples on a quarterly basis for five quarters prior to exposing water during mining. The water quality data will be used as a baseline, while subsequent water quality data, (obtained periodically) will be compared to the baseline data to assess water quality variations. Parameters with significant non-detects or are determined to be unrelated to mining and/or mining activities will be proposed for removal on a case-by-case variance. Sampling frequency after the five quarters of baseline data will be periodic and is assumed to be annually. The method proposed for the water quality assessments is discussed in the following section.

Water quality monitoring wells and point of compliance wells will have water quality samples collected quarterly for the first five quarters and then on a regular basis (at least annually) using the Groundwater Sampling Plan. Table 3 lists all the parameters found in the DRMS June 9, 2023 Groundwater Monitoring Sampling and Analysis Plan Guidance – Appendix A with an asterisk on certain parameters. Several of the parameters are not relevant to the mining operations and it is requested that they be omitted. The Rationale for omitting the asterisked parameters is found in Table 4. Parameters for the initial five quarters of baseline sampling will be those on Table 3 that did not get approval for omission by DRMS.

Collected samples will be preserved as recommended by the analytical laboratory and will be recorded on field data sheets and the laboratory chain of custody. Once baseline water quality data is obtained, a proposal will be submitted to reduce the number of wells and parameters to be quality monitored in the form of a DRMS Technical Revision (TR). Point of compliance wells will be utilized for the collection of water quality data for the life of the mine or until monitoring is released by DRMS. Monitoring wells in upgradient and downgradient positions from the specific phase of mining will be used to assess whether water quality degradation could be occurring.

The first five quarters of samples collected from the water quality monitoring (WQM) and point of compliance (POC) wells will be analyzed for the parameters in Table 3, a list including parameters from the CDPHE Regulation 41 – Basic Standards for Groundwater. Groundwater samples collected after the first five quarters will be analyzed for a new list of parameters approved by DRMS in a TR. Parameters detected above the Table Value Standard on the Sampling Parameter List (Table 3), as revised or amended in the future, will be highlighted.

3.0 REPORTING

Groundwater monitoring data will be presented in a table including the sampling date, parameter results with graphs and/or plots for selected parameters, and a comparison to predictions and to the groundwater quality standards. The parameters that exceed the Table Value Standard on the Sampling Parameter List will be highlighted with bold or colored fonts in the report. The groundwater quality data report will include a narrative analysis of the data and identify trends and anomalies.

It is proposed that control charts, generated on a quarterly basis (for the baseline period, then annually after that), be provided to the Division on an annual basis to demonstrate changes in water quality with time. If exceedances of the control charts are noted after regular annual sampling, a specific response plan will be prepared by LGE to address that issue. The specific response plan would be based on an evaluation of the number of selected parameters that show exceedances and the duration of these exceedances.

4.0 VERIFICATION RE-SAMPLING

Under certain circumstances a verification re-sampling may be collected, and samples submitted for analysis using the Groundwater Sampling Plan. The samples will be collected within four weeks of the analytical report date. A verification sample may be collected during the following sampling event depending on the frequency of sampling. Verification re-samples are designed to provide confirmation of the sample analytical data for sample result anomalies or statistical analysis.

Figures and Tables

Figure 1

L.G. Everist, Inc.

WEST FARM RESERVOIRS

Map Exhibit G-1 - Water Wells Within 200 feet

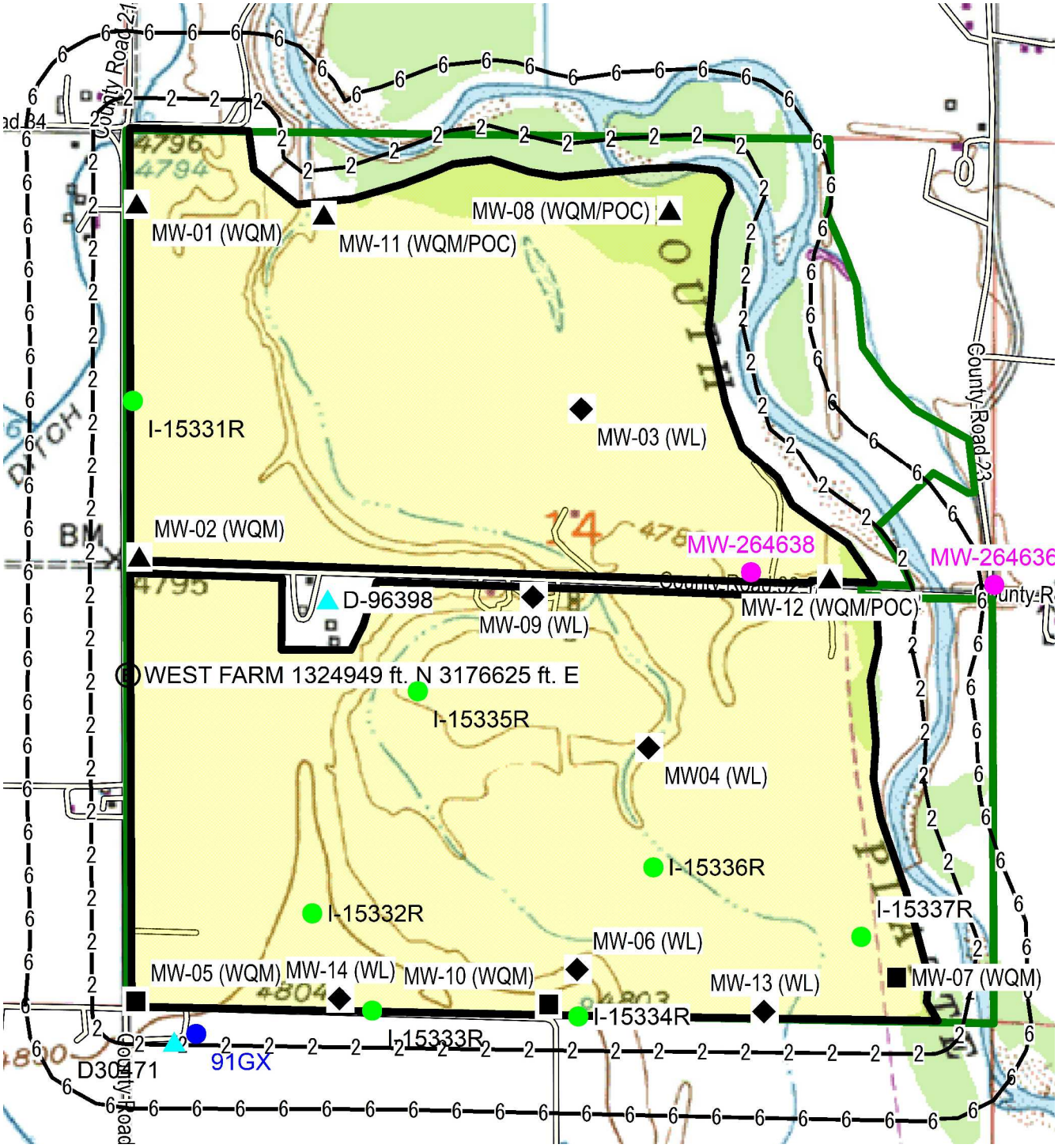

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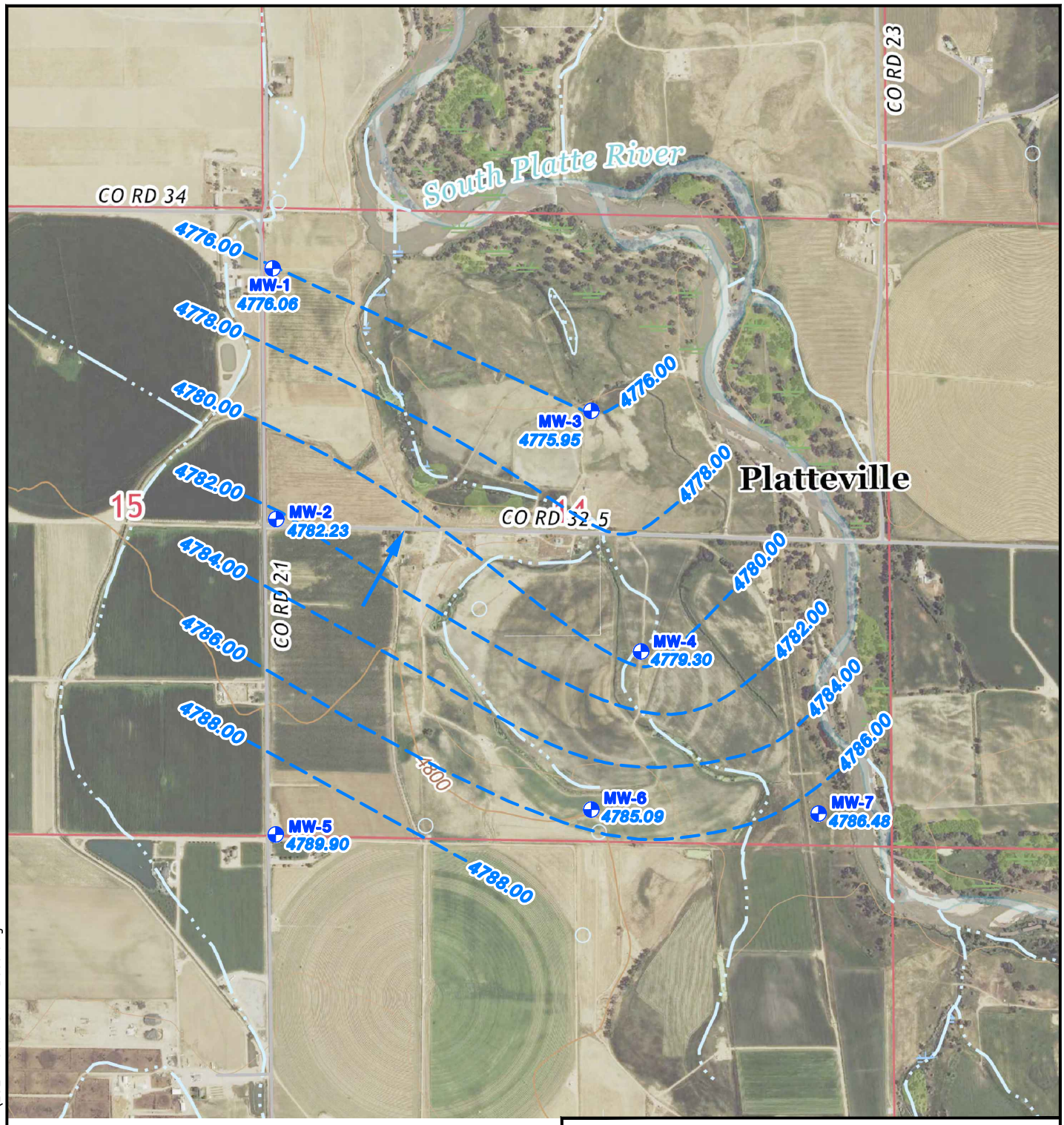
Figure 2



LEGEND

- Monitoring Well Location
- 4784.00 Groundwater Elevation Contour (feet amsl)
- 4779.30 Groundwater Elevation (feet amsl)
- Groundwater Flow Direction

0 600 1200
SCALE IN FEET

LG EVEREST WEST FARM

Groundwater Elevation Contour Map
10/24/2022

XX-XXX	4/18/2023	Figure 1

MOLEN & ASSOCIATES, LLC

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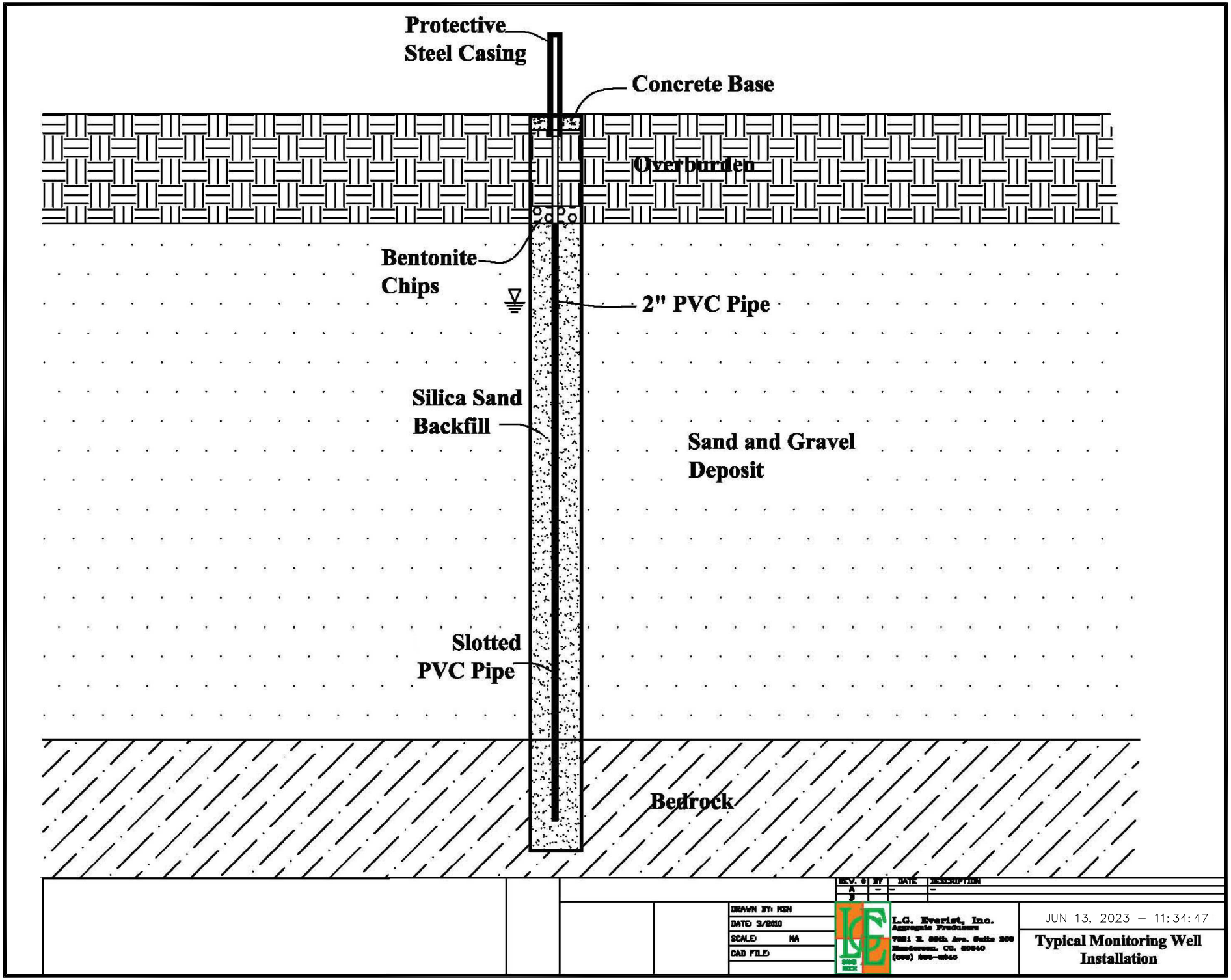
Figure 3


Protective
Steel Casing
Concrete Base
Overburden
Bentonite
Chips
2" PVC Pipe
Silica Sand
Backfill
Sand and Gravel
Deposit
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PVC Pipe
Bedrock
REV. #
BY
DATE
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DATE: 3/2010
SCALE: NA
CAD FILE:
L.G. Everist, Inc.
Aggregate Producers
JUN 13, 2023 – 11:34:47
Typical Monitoring Well
Installation

Table 1: Existing Monitoring Wells Survey Data (7-7-2023)

MONITOR WELL NO.	NORTHING, FT	EASTING, FT	ELEVATION (TOG), FT	CASING HEIGHT, FT	ELEVATION (TOC), FT
MW 1	1327768.606	3176657.946	4,799.803	3.57	4,803.368
MW 2	1325656.483	3176688.055	4,801.272	3.97	4,805.242
MW 3	1326568.902	3179344.23	4,779.160	3.74	4,782.900
MW 4	1324539.638	3179763.207	4,782.169	3.24	4,785.409
MW 5	1322997.254	3176684.665	4,804.36	3.62	4,807.98
MW 6	1323208.398	3179342.954	4,802.13	3.02	4,805.15
MW 7	1323173.328	3181259.315	4,791.08	3.29	4,794.38

Table 2: Existing and New Well Locations

WELL NAME	LOCATION	GRADIENT	TYPE	RATIONALE
MW-01	NW PHASE 3	DOWN	WQM	Existing – NW corner of Phase 3
MW 02	SW PHASE 3 CEN ALL	CROSS/UP	WQM	Existing – SW corner of Phase 3 and west central of all mining, north of Phase 4
MW-03	NE COR PHASE 2 ALL	DOWN	WL	Existing central east and north
MW-04	MID N CEN PHASE 1	MID	WL	Existing central east and south
MW-05	SW COR PHASE 4	UP	WQM	Existing SW corner of Phase 4
MW-06	S MID BDRY PHASE 1	UP	WL	Southern boundary central
MW-07	SE COR PHASE 1	UP	WQM	Existing eastern boundary
MW-08	NE COR PHASE 2 ALL	DOWN	WQM/POC	New well northeast boundary of Phase 2 and all Phases, down gradient
MW-09	MID N CEN PHASE 1	MID	WL	New well north boundary of Phase 1, south of Phase 2 and central for all Phases
MW-10	S MID BDRY PHASE 1	UP	WQM	New well southern boundary central
MW-11	NW PHASE 2 N ALL	DOWN	WQM/POC	New for NW of Phase 2 and NE of Phase 3
MW-12	SE PHASE 2 E CEN ALL	DOWN	WQM/POC	New for SE of Phase 2 and east central all Phases
MW-13	SE PHASE 4/S CEN ALL	UP	WL	New for SE of Phase 4 and S for all Phases
MW-14	SE PHASE 1 SE ALL	UP	WL	New for SE side

DOWN = downgradient
UP = upgradient
CROSS = cross gradient
NW = northwest
SW = southwest
NE = northeast
SE = southeast
COR = corner
WL = water level piezometer
POC = point of compliance
BDRY = boundary
ALL = services all phases
WQM = water quality monitoring

Table 3: Sampling Parameter List (7-7-2023)

Analyte	Table Value Standard (mg/L unless other units given)	Reg. 41 Table Reference (1-4)
pH Field (pH unit)	6.50 - 8.50	2 and 3
Coliforms Total (30 day average)*	2.2 org/100 ml	1
Asbestos*	70000 fibers/L	1
Chlorophenol*	0.0002	2
Color*	15 color units	2
Corrosivity*	noncorrosive	2
Foaming Agents*	0.5	2
Odor*	3 threshold numbers	2
Phenol*	0.3	2
Free Cyanide*	0.2	1
TDS	400 mg/L or 1.25X background	4
Aluminum - Dissolved	5	3
Antimony - Dissolved	0.006	1
Arsenic - Dissolved	0.01	1
Barium - Dissolved	2	1
Beryllium - Dissolved	0.004	1
Boron - Dissolved	0.75	3
Cadmium - Dissolved	0.005	1
Chloride - Dissolved	250	2
Chromium - Dissolved	0.1	1 and 3
Cobalt - Dissolved	0.05	3
Copper - Dissolved	0.2	3
Fluoride - Dissolved	2	3
Iron - Dissolved	0.3	2
Lead - Dissolved	0.05	1
Lithium – Dissolved*	2.5	3
Manganese - Dissolved	0.05	2
Mercury - Dissolved	0.002	1
Molybdenum - Dissolved	0.21	1
Nickel - Dissolved	0.1	1
Nitrate (NO3)	10	1
Nitrite (NO2)	1	1
Nitrite + Nitrate as Nitrogen	10	1
Selenium - Dissolved	0.02	3
Silver - Dissolved	0.05	1
Sulfate - Dissolved	250	2
Thallium - Dissolved	0.002	1
Uranium - Dissolved	0.0168 to 0.03	1
Vanadium - Dissolved	0.1	3
Zinc - Dissolved	2	3
Beta and Photon emitters*	4 mrem/yr	1
Gross Alpha*	15 pCi/L	1

* Parameters to be omitted from sampling requirements based upon the Parameter Exclusion Rational discussed in Table 4.

Table 4: Parameter Exclusion Rationale (7-7-2023)

Analyte	Exclusion Rational
Coliforms Total (30-day average)	Human and animal waste contain fecal coliforms. Bacterial coliforms are naturally found in the environment. Ingestion of coliforms is dangerous and can cause serious illness or death. It is expected that coliforms may be present in groundwater throughout Colorado and the sources are associated with excrement from animals in the natural environment. There are no coliforms being generated from mining activities at the LGE-West Farm site and as such, coliforms should be excluded from the monitoring parameter list.
Asbestos	Asbestos is a mined mineral with special characteristics of strength, filtration, and fire resistance. Asbestos was widely used in products in the first part of the 20th century. Later it was found to be a lung carcinogen and is now known to be an ingestion hazard as well. Asbestos uses are limited, and it is generally omitted from products where it was once found. Asbestos abatement from schools and private structures has been ongoing since the mid-1980s. Asbestos from abatement products is strictly regulated and documented disposal is required. Asbestos fibers in soils are regulated by CDPHE, and when found, are required to be removed and disposed of properly. Asbestos is not associated with the geology of the LGE West Farm site and should not be in natural formations at the site. It is regulated because it is a known carcinogen and water containing asbestos should not be consumed. The groundwater at LGE-WF site should not contain asbestos. There are no asbestos mines in Colorado. Water at the LGE West Farm site is not used for drinking water. There is no reason to expect asbestos in the groundwater and it should be an excluded parameter for the LGE-West Farm site.
Free Cyanide	Free cyanides are the cyanide containing compounds that can liberate cyanide gas in a neutral or slightly acidic environment. Hydrogen cyanide is the most common free cyanide. Sodium cyanide and potassium cyanide are readily soluble in water and, like hydrogen cyanide, produce cyanide gas in slightly acidic water. Cyanide gas and free cyanide in water are extremely poisonous. However, cyanides have to be introduced from a source, a pollutant in the water. Cyanides are not used, produced, or found in any mining activities at a sand and gravel mine. Cyanides may be associated with precious metal mining during heap leaching or related activities, but they are not at a sand and gravel mine. There are no manufacturing facilities around the LGE West Farm site. For these reasons, free cyanides should be excluded from the groundwater monitoring parameter list.
Chlorophenol and Phenols	Chlorophenol is a group of organic compounds that are synthesized and not generally found in nature except as pollutants from a specific source. Chlorophenols are only slightly soluble in water. The most commonly identified chlorophenols are: • Monochlorophenol - used in modest volumes, as dyestuff intermediates and in the manufacturing of higher chlorinated phenols • Dichlorophenol - used in larger volumes in the manufacture of the herbicide 2,4-D and other related chlorinated herbicides

Chlorophenol and Phenols (cont.)	• Trichlorophenol - used in the manufacture of herbicides, primarily 2,4,5-TP (Silvex) which has been banned in the United States for decades. • Tetrachlorophenol - used as a preservative. • Pentachlorophenol (PCP) - used as an antimicrobial wood preservative and historically coating on utility poles and cross arms. PCP is often mixed with creosote or other wood coating products. The US EPA is phasing out the uses of PCP over five years beginning in 2022. Wood treatment facilities will be allowed to use their existing stocks of PCP for wood treatment until 2027. Due to the high toxicity of PCP, it is normally used for toxicity calculations for chlorophenols. Phenol is similar to chlorophenol and is an important industrial chemical used as a precursor to many different materials and useful compounds. Phenol is readily soluble in water and sources of it in groundwater would be limited to industrial facilities. In general, chlorophenols and phenol are considered a problem in drinking water systems because they have a strong pungent odor in very small concentrations. The odor makes the water undesirable to drink regardless of the risk factors associated with toxicity. As stated in Reg 41 – Basic Standards for Groundwater (page 56) "The organic chemicals chlorophenol and phenol were moved from Table 1 (Human Health Standards) to Table 2 (Secondary Drinking Water Standards), and the proposed standards were set equal to the Ambient Water Quality Criteria for the chemicals. The reason for the change is that although the two chemicals pose a significant health risk at much higher concentrations, taste and odor considerations are a concern at lower concentrations." Chlorophenols and phenols are not associated with sand and gravel mining and may only be a concern if the mining site were adjacent to a wood treatment facility. Broderick Wood Products (BWP) Superfund site in Denver and is adjacent to the Koppers Wood Treatment facility. Both sites have been studied extensively and groundwater contamination was identified off-site and in the neighborhood. Molen & Associates has collected groundwater monitoring samples at the BWP site. Reports generated for the EPA demonstrate that the PCP concentrations are below the detection limits in many of the on-site and off-site wells. The reported concentrations indicate that even at a facility where PCP was used, the concentrations in groundwater are too low to be detected by standard analytical equipment with a detection limit of 1 microgram/liter. Reg 41 – Basic Standards for Groundwater generally considers chlorophenols and phenols as a pollutant of concern due to the odors and taste in drinking water, and if PCP or phenols are in detectable concentrations, a toxicity hazard. The LGE West Farm site is not near a wood treatment facility or any manufacturing facility and chlorophenols and phenols should not be in the groundwater. Mining activities will not introduce any chlorophenols or phenols into the environment. For these reasons chlorophenols and phenol should be excluded from the parameter monitoring list.

Color	The color and appearance of water is an aesthetic property that makes drinking water desirable. The color of groundwater is generally related to the turbidity of the water from natural sediments found in the well. Mining activities at the LGE West Farm site will not change or add to the color of the groundwater. The groundwater is not used as drinking water at the LGE-West Farm site and color should be excluded from the parameter monitoring list.
Corrosivity	Corrosivity is associated with a low pH (i.e.acidic) water. Natural water at the LGE West Farm site, like all waters along the South Platte River basin, are neutral with pH values within groundwater standard limits (pH 6.5-8.5). Corrosive conditions are not found at the LGE West Farm site and mining activities will not create corrosive conditions at the site. As such, corrosivity should be excluded from the monitoring parameter list.
Foaming Agents	Foams and foaming agents are generally listed in Reg 41 due to the appearance of the water for drinking purposes. Different types of foams occur naturally in lakes and streams where water is churned up from wind or water flowing over riprap structures. The most common foaming agents are detergents and simple soaps. Foaming agents typically come from industrial processes or consumer wastewater and are generally not expected to be associated with sand and gravel operations. LGE will commit to not using detergent, soaps, or other foaming agents at the LGE-WF site. Analysis for foaming agents should be excluded from the LGE-West Farm site.
Odor	Odor is an aesthetic property of drinking water and is difficult to quantify the substance creating the odor. Measuring odor in samples is subjective to the analyst. Mining at the LGE West Farm site will not introduce odors to the groundwater and odor testing should be excluded from the monitoring parameter list.
Lithium - Dissolved	Lithium is an alkali metal with very limited abundance in the earth's crust, estimated to be about 20 ppm (mg/L). The US Governmental report, Lithium Resources in North America, Geological Survey Bulletin 1027-G (found at https://pubs.usgs.gov/bul/1027g/report.pdf) indicates that the abundance of lithium in Colorado is generally limited to the Gunnison area. The United States Geological Service (USGS) published a report with the mean concentrations of lithium in specific locations in Colorado. Comparing all the lat/long information in the USGS report file (file title - Lithium_Statistics.cvs), there is no lithium identified near the LGE West Farm site. The report and statistics file are found at https://www.sciencebase.gov/catalog/item/5ed8f70f82ce7e579c6739c1 . It should be safe to assume that lithium would not be found naturally occurring in the groundwater near the LGE West Farm site. Mining activities at LGE West Farm do not involve any lithium-based materials that would impact groundwater. The only materials that contain lithium are standard AA or AAA batteries that are managed and recycled off-site. For these reasons, we think lithium should be excluded from the groundwater monitoring parameter list.
Gross Alpha/Beta	Gross alpha and gross beta particle emitting constituents present health hazards in drinking water. Quantification of gross alpha and gross beta includes wide uncertainties with reported values from well samples varying widely. There are no sources of gross alpha or gross beta particle emitting constituents during the mining activity at the LGE West Farm site and the parameters should be excluded from the monitoring list.