

# Natural Soda LLC 2023 Project Status Report & Annual Plan of Development January 2024

Please note CONFIDENTIAL data sections of this document

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## **1.0 Introduction and Project Summary**

This 2023 Project Status Report and Annual Plan of Development is submitted to fulfill the requirements of BLM sodium leases, COC-00118326, COC-00118327, COC-0119986, and COC-37474 as stated in Federal Regulations 43 CFR, Subpart 3591 and 3592 and the Project Record of Decision dated January 20, 1987. This report is also submitted to the Colorado Division of Reclamation Mining and Safety (DRMS) to meet the requirements for an Annual Report per State permit number M-1983-194, and in part to meet the requirements contained in the EPA UIC Class III Area Permits: CO30358-00000 and CO32169-00000. EPA UIC Permit CO32169-0000 was assigned to the Deep Vertical Production Well (DVPW) project. The NS DVPW program was terminated by NS and NS Plugged and Abandoned (P&A) the DVPW-1 well in 2022. This permit was canceled by the EPA in 2023 at the request of NS. The EPA UIC permit expired on January 20, 2023. Permit C032169-0000 will not appear in future annual reports.

This report summarizes the Natural Soda LLC (NS) 2023 process operations, production activities, reclamation status, geotechnical and environmental monitoring results, as well as the status of surface facilities and wells. Proposed operations for 2024 will be described in this report, including the possibility of permitting two new production wells, 19H-1V and 19H-IR-E. NS will also drill and complete two new production wells, the 18H-1V and the 18H-IR-W well. Groundwater monitor wells (GMWs) and water supply wells (WSWs) will be maintained in 2024.

# 2.0 Description of Project Area

## 2.1. Location and Regional Setting

The four NS federal sodium leases are located in the Piceance Creek Basin in Rio Blanco County in northwestern Colorado (Figure 1 and Figure 2). The sodium leases are located primarily between the Yellow Creek and Piceance Creek drainages, approximately 41 miles from Meeker, Colorado and 53 miles from Rifle, Colorado. The climate is semi-arid with annual precipitation averaging 12-14 inches. Precipitation generally occurs as snow from November to March and as rain during the remainder of the year. The vegetation is predominantly pinyon pine, sagebrush, Utah juniper, western wheatgrass, and needle-and-thread grass. The total area contained within the four sodium leases is 8,379 acres more or less. The principal area of current operations are located in and around Section 26, T1S, R98W, 6<sup>th</sup> Principal Meridian. Figure 1 shows the NS leases and regional setting. Figure 2 shows sodium leases within the Piceance Creek Basin. Figure 3 and Figure 4 show the NS well locations and proposed well locations.

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## Figure 1: Natural Soda LLC Vicinity Map







Figure 2: NS Sodium Leases Map



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Figure 3: NS Plant and Well Location Map, Section 26 Detail.







Figure 4: NS Plant and Well Location Map, Expanded View



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## 2.2. Leasehold Status

The original four NS sodium leases were renewed by the BLM in 2021 for a period of ten years. Annual rental and royalty payments have been submitted to the Mineral Management Service. The NS leases comprise approximately 8,379 acres. NS plans to renew the leases again in 2031 for an additional period of ten years.

## 3.0 Project Status

## 3.1. 2023 Project Activities (Confidential)

## (See Figure 3 & Table 4: Plant and Well Location Maps)

In 2023 NS produced 250,297 tons of sodium bicarbonate, and generated 249,916 tons in annual sales. Table 1 presents the monthly sodium bicarbonate production, sales, and inventory summary for 2023. This product was produced from the 12H, 13H, 15H, 16H, and 17H mining intervals. The 2023 and lifetime sodium bicarbonate production for the mining intervals is presented in Table 2. Routine boil outs were performed in 2023. NS completed a capital project to install a cyclone on the #3 dryer which is the product dryer in Train #2. The installation was completed in April 2023. NS is planning additional capital expenditures to upgrade equipment over the next few years. Various short shutdowns were required for routine maintenance, equipment repair, and/or replacement throughout the year.

## 3.1.1. Items of Significance (Confidential)

- A 3-acre well pad was constructed for the proposed 18H-1V/19H-1V/20H-1V slant production wells. To access this pad from the plant, a 1,600 foot access road was built and graveled. A new pipeline was constructed proximal to the access road to connect the proposed 18H-1V production well with existing pipeline infrastructure. The existing 15H-17H (west) pad was extended toward the south; this 2-acre pad extension will be utilized for the proposed 18H-IR-W and 19H-IR-W wells.
- Plug & Abandonment (P&A) operations occurred during 2023 to remove older wells from the NS groundwater monitoring program. These wells, associated with the Rock School Lease: AM-2, MWA-2, MWB-2, MWD-1, MWD-2, MWU-2, and the RS-96-20-1 were all P&A'ed in 2023.
- NS P&A'ed three inactive sodium bicarbonate production wells in 2023: 14H-R(I), 15H-I, and the 17H-I.

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## 3.1.2. 2023 Monthly Bicarbonate Summary (Confidential)

Month	Beginning Inventory	Production	Sales	Ending Inventory
January	5,574	21,808	22,950	4,433
February	4,433	18,960	19,284	4,108
March	4,108	21,248	21,850	3,437
April	3,437	20,141	19,448	4,130
Мау	4,130	21,720	21,106	4,744
June	4,744	19,716	19,463	5,004
July	5,004	23,072	22,272	5,805
August	5,805	20,040	20,209	5,636
September	5,636	20,875	20,864	5,677
October	5,677	20,838	22,129	4,385
November	4,385	21,263	20,426	5,221
December	5,221	20,616	19,915	5,902
TOTALS		250,297	249,916	

Table 1: Monthly Production, Sales, and Inventory Summary in Tons (Confidential)

## 3.1.3. Mining Interval Bicarbonate Production (Confidential)

Table 2: Mining Interval Annual and Lifetime Production (Confidential)

Tons Mined in 2023	Mining Interval				
	12H	13H	15H	16H	17H
	31,945	16,906	64,027	71,102	66,318
Total Production (Tons) as of Dec 31, 2023	352,415	262,199	404,507	336,538	219,691

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## 3.1.4. Regulatory Review (Confidential)

NS submitted routine Sundry Notices, monthly, quarterly, and annual reports to the appropriate agencies. The following summarizes other regulatory related activities:

### Bureau of Land Management (BLM)

- In February 2023 NS submitted an application for an off-lease access road for the 15H-17H well pad extension for the proposed 18H-IR-W well and the 18H-1V well pads crossing public lands in T1S, R98W. The BLM approved the amendment to the existing Right Of Way (ROW) # COC-77816 on July 11, 2023.
- NS contracted with Grand River Institute (GRI) in April 2023 to conduct a Class III cultural resource inventory for the proposed 18H-1V access road and pipeline per BLM requirements in May of 2023. GRI conducted the survey over 4 days and submitted the final report to BLM Archaeologist, May 15, 2023. BLM reviewed the survey and had no objection with the construction of the proposed access road and pipeline.
- NS contracted D&A to perform a raptor survey for the proposed 2023/2024 drilling and completion operations areas. The raptor survey was conducted May 15 and 16, 2023 with no noted problems or concerns. The report was submitted to the BLM on May 23, 2023.
- The BLM approved the applications for drilling the 18H-1V and 18H-IR-W wells on June 3, 2023 and also sent NS the Conditions of Approval (COA's). NS submitted the applications in November of 2022.
- NS submitted Well Sundry Notices for the P&A of the seven Rock School Lease groundwater monitoring wells (AM-2, MWD-1, MWU-2, MWA-2, MWB-2, MWD-2, and RS-96-20-1). On September 15, 2023. BLM 3160-5 forms and well P&A diagrams for each well were submitted to the BLM.
- October 5, 2023 NS submitted Well Sundry Notices for the P&A of the 14H-R(I), 15H-I, and 17H-I production wells with required BLM 3160-5 forms and diagrams.
- November 7, 2023 the BLM granted NS an exception to the timing limitation in the 18H-1V and 18H-IR-W COA's, authorizing a May 1, 2024 commencement of drilling operations.



## United States Environmental Protection Agency (EPA)

- January 12, 2023 NS sent EPA a request for the release of the DVPW-1 (EPA # C032169-08754) bond monies (\$63,140) and termination of the DVPW UIC permit following the successful P&A of the DVPW-1 injection well in September of 2022. The DVPW-1 was the only well on EPA permit C032169-00000. EPA agreed with NS request for removal and sent a notification letter on January 24, 2023.
- NS coordinated with the EPA during the first half of 2023 to modify NS's subsurface subsidence monitoring well (SSMW) requirements.
- February 2023 NS coordinated with the EPA with regards to the confidentiality of NS's EPA quarterly report data. NS modified EPA reporting for 2023 to comply with agreed upon confidentiality requirements.
- April 6, 2023 the EPA approved the 18H-IR-W UIC well permit (#C030358-12525) and authorized construction.
- NS submitted EPA P&A reports for the 14H-R(I), 15H-I, and 17H-I injection wells (EPA# CO30358-11614, 11004, and 11006 respectively) on October 4, 2023. EPA subsequently notified NS that the subject wells were removed from the area permit C030358-0000 October 24, 2023.

### Colorado Division of Reclamation, Mining and Safety (DRMS)

- NS submitted annual reports and fees for DRMS Permits M 1983-194 and M-1999-051 in January 2023.
- January 27, 2023 NS submitted a request for Technical Revision (TR) 50 to drill and complete the 18H-1V and 18H-IR-W production wells, construct well pads, access road, and pipeline; TR-50 was approved on February 14, 2023. TR-50 approval increased NS financial responsibility to \$4,466,425. NS put in place appropriate financial warranty which was accepted by the DRMS on April 11, 2023.
- DRMS conducted an onsite 1<sup>st</sup> quarter inspection on April 3, 2023. DRMS observed the process buildings and internal plant equipment. During the inspection DRMS noted that the crystal habit modifier, defoamer, and oxygen scavenger chemicals Material Safety Data Sheets (MSDS) were not on file with the division, and requested they be filed no later than June 16. DRMS received and acknowledged the requested MSDS from NS on April 26. No additional problems or violations were noted during this inspection.

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- June 5, 2023, DRMS conducted an onsite 2<sup>nd</sup> quarter inspection focused on the reclamation success of recently reclaimed areas. Pad 8H, 93-4H, 91-2H, BG-9, BG-5 and DS-4 were visited and observed. DRMS made recommendations on weed abatement and reseeding for some locations. No problems or violations were noted during this inspection.
- DRMS inspected the M-1999-051 Rock School Lease on June 5, 2023 prior to the P&A of the seven monitor wells associated with the permit. Wells, vegetation, and reclamation efforts were observed. No problems or violations were noted during this inspection.
- DRMS conducted an onsite 3<sup>rd</sup> quarter inspection on August 28, 2023 to inspect the stormwater management and the 18H newly constructed pads and access roads. DRMS observed trash and sedimentation surrounding the plant area and affecting the functionality of stormwater drainage. DRMS requested trash, ditches, and berms surrounding the plant to be cleaned and modified to alleviate the drainage issues by October 31, 2023. NS conducted the requested corrective actions and submitted documentation to DRMS on October 27, 2023. The DRMS was satisfied with the corrective actions. No additional problems or violations were noted during the inspection.
- On November 30, 2023 DRMS conducted the 4<sup>th</sup> quarter onsite inspection of the NS operation. This site visit was to observe the Secondary Containments located within the plant. DRMS observed many chemicals throughout the plant inspection they did not have a record of and requested NS to provide all MSDS to DRMS for said chemicals by February 16, 2024. On December 18, 2023 DRMS acknowledged the receipt of seven MSDS sheets and was satisfied that no additional action was necessary. No additional problems or violations were noted during this inspection.

## Colorado Division of Water Resources (DWR)

- A senior water right holder placed a call on the White River effective December 1, 2022. NS initiated its surface water augmentation plan (88CW420) on December 19,<sup>3</sup> 2022. NS periodically released water during 2023 from the WSW-3 and WSW-4 to meet obligations for White River surface runoff requirements. NS released 1,241,300 gallons in 2023.
- NS notified DWR of the P&A completion for the AM-2, MWA-2, MWB-2, MWD-1, MWD-2, and MWU-2 Rock School Lease groundwater monitoring wells on September 18, 2023.

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### Colorado Department of Public Health & Environment (CDPHE)

- CDPHE inspection personnel conducted a full compliance inspection of NS operations on February 7, 2023. No visible emissions were observed during inspection, no off property transport of visible emissions were observed, and no odors were noted. Construction Permits were reviewed with no noted concerns. Current Air Permit Emission Notices (APENs) were reviewed and found to be in compliance. The CDPHE inspection found NS to be in compliance.
- On February 22, 2023, NS submitted the COG-500000 Annual Stormwater Report to the CDPHE.
- NS submitted annual water sampling data for water supply wells (WSWs) to the CDPHE in the 4th quarter 2023. The WSW-2 tested positive for coliform. This issue was corrected by NS with the addition of 55 gallons of sodium hypochlorite and 4,400 gallons of 1% sodium hypochlorite to WSW-2 over the course of a day, the well was allowed to sit overnight. The following day the well pump was started, the treated water was pumped into the NS water truck, and periodically tested until uS, pH, ORP, free chlorine and total sulfide returned to normal ranges. NS continued flushing the well for an additional day and submitted another sample to CDPHE which tested negative for coliform and e coli. Treatment was completed on December 5th, and the treated fluid was disposed of properly into the NS waste pond.
- NS submitted a Facility-Wide Greenhouse Gas Emissions (GHG) APEN (AIRS ID # 103/0028/002) and fee on December 20, 2023.

## **Rio Blanco County (RBC)**

- RBC did not require amendments to the existing Special Use Permit (SUP) 12-04 for the 2023 P&A operations.
- A RBC building permit for the 2023 Train 2 Cyclone Installation Project was acquired by NS in September 2022.
- In June, NS submitted and was approved for a SUP permitting the construction of the 18H-1V well pad, pipeline, and access road.

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## 3.2. Proposed 2024 Activities and Schedule (Confidential)

## 3.2.1. Processing (Confidential)

NS anticipates sodium bicarbonate production of approximately 250,000 tons in 2024. Brief, routine shut-downs for periodic boil-outs and maintenance activities will occur as necessary.

## 3.2.2. Well field (Confidential)

- NS plans on drilling two new production wells to establish the western portion of the 18H mining interval during the spring/summer of 2024. These wells have been permitted and approved by all agencies. The 18H-1V slant production well will be drilled first. The 18H-IR-W production well will then be drilled to intercept the 18H-1V within the desired Boise Bed target zone.
- NS may continue the permitting process, during 2024, for two new production wells, the proposed 19H-1V slant production well to be drilled as the first well of the 19H mining interval and the proposed 19H-IR-E production well to be drilled east of 19H-1V. The 19H-IR-E will intersect the 19H-1V well, forming the eastern portion of a new 19H mining interval.

## 3.2.3. EPA Notification – Schedule of Planned Mechanical Integrity Test (MIT) (Confidential)

- Per EPA UIC Permit C030358-00000 requirements, the following routine injection well (initial, 5-year, or 10-year) MIT Part 1 pressure testing and MIT Part 2 temperature logging is planned for 2024 or the first quarter of 2025.
  - 15H-IR-E (5-year): MIT P1 and P2 testing/logging is planned to occur during the fourth quarter 2024 and/or the first quarter of 2025.
  - 18H-IR-W MIT P1 (initial) will be conducted, as appropriate, during well construction in 2024.
  - 18H-IR-W MIT P2 baseline temp log will be run, as appropriate, during well construction. MIT P2 initial logs are required 60-90 days post EPA ATI.

# 3.2.4. EPA Notification – Schedule of Planned SSM Survey (Confidential)

• NS conducted the biennial surface subsidence monument survey in 2023 and the results are reported in section 4.4.2 of this report. The next biennial surface subsidence monument survey will occur in 2025 in accordance with UIC Permit C030358-00000 requirements.

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# 3.2.5. EPA Notification – Schedule of Planned SSMW Logging (GR/CCL) (Confidential)

- Per EPA UIC Permit C030358-00000 requirements; routine subsurface subsidence monitor well (SSMW) logging (GR/CCL) is planned for 2024 or the first quarter of 2025:
  - NS logged the DS-3 well on January 9, 2024 to collect SSMW CCL/GR logs. The DS-3 monitor well serves as a GMW and SSMW for the 12H and 13H mining intervals. Comparison of 2002, 2011 and 2024 CCL/GR logs indicated no subsurface subsidence in the DS-3 well.
  - Per UIC Permit, SSMW logging is determined based on mining interval production, NS will notify the EPA of upcoming SSMW logging as production milestones become more clear.

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# 4.0 2023 Project Activities

## 4.1. On-Site Facilities and Process Description

## 4.1.1. General Arrangement

## (Figure 5 provides an overview of the NS process flow.)

## 4.1.2. Lab Operation / Sanitation / ISO

In 2023, activities continued in the NS laboratory to provide analysis for process control, quality assurance, and regulatory requirements.

- Plant operators performed process control analyses.
- Chloride levels were monitored by both operations and laboratory personnel on USP grades to ensure USP standards were met.
- The USP test for insoluble materials was conducted on a per lot basis by laboratory personnel and a filter test for insoluble materials was conducted on the dry product once per shift by NS operators.
- Pests were controlled with the use of two UV bug lights and rodent traps around the interior and exterior walls of the plant. Bait stations replaced external traps at the Rifle warehouse.
- GMP/ISO/Sanitation training was provided for employees as required.
- A food safety audit for FSSC 22000 was conducted for which NS maintained GFSI certification.
- CDPHE, NSF, OMRI, Kosher, Halal, Non-GMO, CleanGredients and ISO 9001 certifications were properly maintained.

## 4.1.3. **Process, Utilities, Facilities**

- The NS Train 2 Dryer system did not have a Cyclone; a capital project was undertaken in 2023 to add a Cyclone to the system. Work on the Cyclone installation project began during January 2023; on April 10<sup>th</sup> dryer cyclone #3 installation final processes commenced and were completed and operational on April 14, 2023.
- June 18 23, the NS plant underwent the yearly common outage, where all production wells were shutdown. NS boiled out both production trains and completed annual maintenance and inspections on Common systems (electrical switchgear, cooling tower, wellfield pipelines, etc.).
- The NS Packaging Department shutdown on July 13<sup>th</sup> while the upgraded personnel protection tripping circuit, trip switches, trip wires, roller guides and guide loops on double/triple baggers, incline conveyor, and palletizer were installed and made operational.

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• On July 25<sup>th,</sup> 2023 a leak was discovered in 16H-I(R) piping. NS diverted all injection flow to 16H-IR-E and repaired the line, once completed all flow was returned to the preexisting operational condition.



**Figure 5: General Flow Process** 

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## 4.1.4. Wells Associated with the NS Project (Confidential)

The following well-field related activities occurred in 2023: Refer *Figure 3 &* Figure 4 *Plant and Well Location Map.* 

- NS began the Rock School Lease P&A project on May 10, 2023 with video log inspections of the 7 wells involved in the project. May 25 through 26, 2023, Himes Drilling Company (Himes) mobilized a pulling unit to the location and began removing various equipment from the wells. On June 18, 2023, Himes rigged up their drilling rig over the first well and began operations.
  - MWA-2 Well P&A began June 19 and was completed July 13.
  - MWB-2 Well P&A started June 19 and was completed July 6.
  - MWU-2 Well P&A began June 22 and was completed June 22.
  - AM-2 Well P&A was started and completed on July 17.
  - MWD-2 Well P&A began July 17 and was completed July 18.
  - MWD-1 Well P&A started July 20 and was completed July 21.
  - RS-96-20-1 P&A began July 21 and was completed July 24.
  - On July 24, 2023 Himes completed the Rock School Lease P&A project. All 7 wells involved in this project will have their casing cut off below ground level, a casing cap and identification placard will be welded onto the casing. The wells will all be buried at the same time when the well pads undergo reclamation work in spring or summer of 2024.
- During July and August 2023 NS built a new 3 acre well pad "18H-1V" near the southern portion of the lease where the proposed 18H, 19H, and 20H-1V slant production wells will be drilled and completed. The dirt work and gravel operations were completed by Moody Services.
- A new 1,600 foot 18H-1V access road was built by Moody services in July and August 2023 to connect the new 18H-1V location to an existing access road to the north of the pad.
- A new pipeline was constructed in fall of 2023 on the 18H-1V access road that will connect the existing pipeline infrastructure to the new feed from the proposed 18H/19H/20H-1V wells.
- A 2 acre southern extension of the existing 15H-17H West location was built and graveled in July and August 2023. The proposed 18H-IR-W and 19H-IR-W production wells will be drilled and completed on this location.
- NS conducted discrete zone water sampling of the DS-3, DS-6, DS-7 and DS-10 wells for annual water quality analysis on June 20, 2023.
- P&A operations occurred on the 17H-I production well between August 7 through the August 11, 2023. The casing was cut below ground level and a final P&A marker was installed in October, 2023.

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- P&A operations occurred on the 15H-I production well between August 11 through the August 18, 2023. The casing was cut below ground level and a final P&A marker was installed in October, 2023.
- P&A operations occurred on the 14H-R(I) production well between August 16 through the August 29, 2023. The casing was cut below ground level and a final P&A marker was installed in September, 2023.

# The current status of wells associated with the NS Project is presented in Table 3: *List and Status of Wells Associated with NS.*

### 4.1.5. Other Activities

Continuous water level monitoring of proximal DS aquifer monitor wells, using fluid level indicators (pressure transducers), provided real time data for the management of active production mining interval operations. Throughout 2023, injection and recovery rates were adjusted to maintain water levels of these monitoring wells near target zones.

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# Table 3: List and Status of Wells Associated with NS (Confidential)

							- (	,	•	
Well Name	Initial Well Type	Current Well Status	Section	Town- ship	Range	Latitude (NAD 27)	Longitude (NAD 27)	Initial TD, (MD, ft)	Current TD, (MD, ft)	Comments
12H-I	Horizontal-Injection	Horizontal- Production	25	1S	98W	39.929304000	108.348621000	4189.0	4189	TVD TD=~1985'
12H-R	Horizontal-Recovery	Horizontal- Recovery	25	1S	98W	39.929598000	108.348538000	2623.0	2623	TVD TD=~2007'
12H-IR	Horizontal-Production (Inj/Rec)	Horizontal- Production	26	1S	98W	39.929667896	108.363801054	3464.7	3464.7	TVD TD=-1972'
13H-R(I)	Horizontal-Production (Inj/Rec)	Horizontal- Production	25	1S	98W	39.929583170	108.348684400	2549	2549	TVD TD=~2013'
13H-IR	Horizontal-Production (Inj/Rec)	Horizontal- Production	26	1S	98W	39.930014690	108.363712457	3423.7	3423.7	TVD TD=-1964'
14H-1V	Slant Production (Rec)	Subsurface Subsidence Monitoring)	26	1S	98W	39.931733549	108.35641781	2095.5	2095.5	
15H-R(I)	Horizontal Production (Inj/Rec)	Horizontal- Production	34	1S	98W	39.927050806	108.370714984	2698	2698	TVD TD=~1850'
15H-1V	Slant Production (Rec)	Slant Production (Rec)	26	1S	98W	39.92797980	108.36112812	2079.1	2079.1	TVD TD=~1922'
15H-IR-E	Horizontal Production (Inj/Rec)	Horizontal Production	25	1S	98W	39.92778393	108.34898748	4032.4	4032.4	TVD TD=~1960'
15H-SSMW	Subsurface Subsidence Monitoring	Subsurface Subsidence Monitoring	26	1S	98W	39.927297800	108.367304200	1760.5	1760.5	
16H-I	Horizontal Injection	Horizontal- Injection	34	1S	98W	39.926332533	108.371061443	5425	5425	TVD TD=~1910'
16H-1V	Slant Production (Rec)	Slant Production (Rec)	35	1S	98W	39.925742470	108.363769248	2086	2086	TVD TD= ~1945'
16H-IR-E	Horizontal Production (Inj/Rec)	Horizontal Production	25	1S	98W	39.927419470	108.349138051	4025	4011	TVD TD= ~1959'
17H-1V	Slant Production (Rec)	Slant Production (Rec)	35	1S	98W	2376.7	2376.7	2376.7	2376.7	TVD TD= ~1961'
17H-IR-E	Horizontal-Production (Inj/Rec)	Horizontal- Production (Inj/Rec)	36	1S	98W	39.9270577	108.349382	3994.7	3994.7	TVD TD=-1965'
17H-R(I)	Horizontal-Recovery	Horizontal- Recovery	34	1S	98W	39.926171184	108.370365216	2431.7	2431.7	TVD TD=-1872'
17H-E SSMW	Subsurface Subsidence Monitoring	Subsurface Subsidence Monitoring	35	1S	98W	39.92601271	108.3531506	1828	1828	
17H-SSMW	Subsurface Subsidence Monitoring	Subsurface Subsidence Monitoring	35	1S	98W	39.925620961	108.367424479	1731.0	1720.6	
89-1	Hydrology Monitoring	Hydrology Monitoring Well	26	1S	98W	39.934818008	108.359830288	1989	1570	
89-2	Hydrology Monitoring	Hydrology Monitoring Well	26	1S	98W	39.934771572	108.359655360	1409	1389	
89-3	Hydrology Monitoring	Hydrology Monitoring Well	26	1S	98W	39.934959857	108.359876003	400	390	Periodic sampling issues
WSW-2 (2010- 26-198-2C)	Core Hole	Water Supply	26	1S	98W	39.932913043	108.357000636	1964	1402	Cored July 2010
WSW-3	Water Supply	Water Supply	26	1S	98W	39.940837450	108.361799400	1440	1440	Drilled August 2014
WSW-4	Water Supply	Water Supply	26	1S	98W	39.940358200	108.348198508	1437	1437	Drilled August 2014
90-3	Hydrology Monitoring	Hydrology Monitoring Well	26	1S	98W	39.927659529	108.363196386	1577	1556	
90-4	Hydrology Monitoring	Hydrology Monitoring Well	26	1S	98W	39.927654857	108.363040763	1392	1371	Cleaned out to TD August 2021
AG-1	Core Hole 2014-25-198-J	Hydrology Monitoring Well	25	1S	98W	39.929116963	108.348465043	2061	1487	Cemented up to groundwater monitoring well level





# Table 3: List and Status of Wells Associated with NS (continued) (Confidential)

Well Name	Initial Well Type	Current Well Status	Section	Town- ship	Range	Latitude (NAD 27)	Longitude (NAD 27)	Initial TD, (MD, ft)	Current TD, (MD, ft)	Comments
AG-2	Hydrology Monitoring	Hydrology Monitoring Well	27	1S	98W	39.927814	108.375312	1275	1275	Drilled & Completed August 2021
BG-4	Hydrology Monitoring	Hydrology Monitoring Well	26	1S	98W	39.929278506	108.356901248	1999.5	1603	
BG-6 (2010- 26-198-6C)	Core Hole	Hydrology Subsidence Monitoring Well	26	1S	98W	39.931301816	108.354997679	1978	1577	
BG-7	Core Hole 2014-25-198-K	Hydrology Monitoring Well	25	1S	98W	39.928987896	108.432905289	1967	1593.1	Cemented up to groundwater monitoring well level
BG-10	Hydrology Monitoring	Hydrology Monitoring Well	27	1S	98W	39.927930	108.375072	1461	1461	Drilled & Completed August 2021
BG-11	Hydrology Monitoring	Hydrology Monitoring Well	25	1S	98W	39.929399	108.348929	1685.5	1685.5	Drilled & Completed February 2021
DS-3	Hydrology Monitoring	Hydrology Monitoring Well	26	1S	98W	39.929529067	108.360329121	2100	1874.5	Sample pump replaced with NLP in 2018
DS-6	Core Hole	Hydrology Monitoring Well	35	1S	98W	39.926942000	108.362195000	2962.6	1870	Cemented up to groundwater monitoring well level
DS-7	Core Hole	Hydrology Subsidence Monitoring Well	26	1S	98W	39.932036903	108.362826421	1980	1875	Cemented up to groundwater monitoring well level
DS-8	Core Hole 2014-26-198-I	Hydrology Monitoring Well	26	1S	98W	39.932738295	108.355594975	2000	1881.7	Cemented up to groundwater monitoring well level
DS-9	Core Hole 2014-25-198-M	Hydrology Monitoring Well	25	1S	98W	39.927447860	108.340064803	1916.5	1842	Cemented up to groundwater monitoring well level
DS-10	Hydrology Subsidence Monitoring Well	Hydrology Subsidence Monitoring Well	35	1S	98W	39.92659671	108.35590409	1995	1925	
MMC-IRI-1	Core Hole	Hydrology Monitoring Well	26	1S	98W	39.927580161	108.363115621	2981	397	Cemented up to groundwater monitoring well level
MMC-IRI-4	Core Hole	Hydrology Monitoring Well	23	1S	98W	39.942950000	108.355333333	3001	1411	Cemented up to groundwater monitoring well level
MMC-IRI-5	Hydrology Monitoring	Hydrology Monitoring Well	23	1S	98W	39.943578031	108.355623039	2983	378	
MMC-IRI-6	Hydrology Monitoring	Hydrology Monitoring Well	23	1S	98W	39.943733333	108.355316667	1878	1394	
MMC-IRI-7	Hydrology Monitoring	Hydrology Monitoring Well	23	1S	98W	39.943516667	108.356033333	1880	1395	
MMC-IRI-11	Core Hole	Hydrology Monitoring Well	25	1S	98W	39.931608050	108.336010982	2963	1550	Cemented up to groundwater monitoring well level
O-GMW-A	Core Hole 2014-27-198-O	Hydrology Monitoring Well (Inactive)	27	1S	98W	39.934483259	108.383446479	1786	1294	Cemented up to groundwater monitoring well level
PA-1	Hydrology Monitoring	Hydrology Monitoring Well	27	1S	98W	39.927639	108.375175	435	435	Drilled & Completed August 2021
TH75-6A	Hydrology Monitoring	Hydrology Monitoring Well	14	1S	98W	39.964492958	108.353578053	1260	1260	USGS Well
TH75-6B	Hydrology Monitoring	Hydrology Monitoring Well	14	1S	98W	39.964807700	108.353045189	1755	1755	USGS Well
TH75-11A	Hydrology Monitoring	Hydrology Monitoring Well	20	1S	98W	39.952321958	108.409207410	1080	1080	USGS Well
TH75-11B	Hydrology Monitoring	Hydrology Monitoring Well	20	1S	98W	39.953286260	108.409494700	1498	1498	USGS Well



## 4.2. New Findings or Developments (Confidential)

- One new 3 acre well pad and 1,600 foot access road were constructed for the proposed 18H-1V slant production well. A new pipeline was fabricated proximal to the access road to connect the 18H-1V to plant operations. An existing pad, 15H-17H West was extended to the South by 2 acres for the proposed 18H-IR-W well.
- NS P&A'ed the GMW wells associated with the Rock School Lease; AM-2, MWA-2, MWB-2, MWD-1, MWD-2, MWU-2 and the RS-96-20-1.
- NS P&A'ed three production wells; 14H-R(I), 15H-I, and the 17H-I.
- In 2023 NS began sampling DS Aquifer GMWs that do not have nitrogen lift pumps by utilizing a wireline deployed discrete zone sampling tool.

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# 4.3. 2023 Operation Results (Confidential)

Mining and production activities were continuous in 2023. The following Table 4 provides a summary of mining and process results:

<u>2023</u>	<u>Recovery</u>	<u>Recovery</u>	<u>Assay</u>	<u>Assay</u>	Tons	<u>Tons</u>	Tons	<u>Tons</u>	<u>Tons</u>	<u>Monthly</u>			
<u>Month</u>	Avg GPM	Temp.	Bicarb g/l	NaCl g/l	Mining Interval #12H	Mining Interval #13H	Mining Interval #15H	Mining Interval #16H	Mining Interval #17H	Total Tons			
Jan-2023	1,908	185	202	15 3,462		1,321	5,229	6,001	5,794	21,808			
Feb-2023	1,846	182	199	16	1,020	3,224	4,713	4,848	5,156	18,960			
Mar-2023	1,933	181	196	17	4,308	2,451	4,680	4,306	5,503	21,248			
Apr-2023	1,866	184	199	16	2,140	1,573	5,475	5,084	5,870	20,141			
May-2023	1,912	184	200	16	2,269	1,537	5,690	6,101	6,124	21,720			
Jun-2023	1,883	183	201	15	3,038	672	5,272	5,600	5,133	19,716			
Jul-2023	2,045	161	198	16	2,184	1,863	5,968	6,817	6,240	23,072			
Aug-2023	1,862	180	198	15	2,990	796	4,601	5,662	5,992	20,040			
Sep-2023	2,019	181	198	15	3,356	365	5,743	5,934	5,477	20,875			
Oct-2023	1,994	181	197	14	3,357	443	5,282	6,688	5,068	20,838			
Nov-2023	2,048	185	200	15	3,495	0	5,779	7,057	4,932	21,263			
Dec-2023	1,883	181	200	14	325	2,661	5,596	7,003	5,031	20,616			
AVERAGE	1,933	181	199	15	2,662	1,409	5,336	5,925	5,527	20,858			
TOTAL					31,945	16,906	64,027	71,102	66,318	250,297			
		Recovery - Monthly average house flow rate and pregnant liquor temperature during process operations.											
		Assay - g/L sodium bicarbonate (as total bicarbonate) and sodium chloride in the pregnant liquor.											
Key to above he	eadings:	(Total bicarbonate = bicarbonate g/L + 1.58 x carbonate g/L)											
		Tons - Total monthly bicarbonate production from each mining interval.											
			-		e pregnant liquor ta								
Avg GPM - Monthly average injection flow rate during process operations.													

Table 4: Mine and Process Data (Confidential)



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Figure 6 illustrates 2023 pregnant liquor analytical results along with monthly averages of sodium bicarbonate production (tons/day). Figure 7 represents monthly and cumulative annual production for 2023. NS produced and processed their sodium bicarbonate product throughout 2023.



Figure 6: NS 2023 Pregnant Assays and Production (Confidential)



Figure 7: NS 2023 Production (Confidential)



## 4.4. Geotechnical Program (Geophysical Logging)

## 4.4.1. Subsurface Subsidence Geophysical Logging

NS conducted the EPA mandated subsurface subsidence logging in the 15H-SSMW well July 2023, the analysis indicated no subsurface subsidence to the depth of 1,750. The 15H-SSMW serves as the subsidence monitor well for the 15H and 16H west mining intervals.

- NS conducted routine, EPA mandated subsurface subsidence logging in their 15H-SSMW well on July 14, 2023. This well serves as the SSMW for the western portions of the 15H and 16H mining intervals. This SSMW log was compared to the baseline SSMW log (July 9, 2016) and indicated no subsurface subsidence to the log total depth of 1,750 feet measured depth below ground level (MD GL).
- DRG & Associates, Inc. conducted routine EPA mandated Surface Subsidence Monuments (SSMs) biennial surveys on June 20<sup>th</sup>, 2023. Results were reported to the EPA on July 5, 2023.

## 4.4.2. Surface Subsidence Monitoring

A surface subsidence monument (SSM) survey of all monuments above NS's area of operations was conducted in the second quarter of 2023. Results of the 2023 SSM survey are shown in Table 5 below, and survey results were reported to the EPA July 2023. The next planed SSM survey will be conducted in the second quarter of 2025.

In 2024 a new SSM will be installed above the 18H west mining interval that will be drilled and completed during the spring/summer of 2024.

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Surface Subsidence Monument (SSM)	Initial Monument Elevation (ft. AMSL)	2023 Monument Elevation (ft. AMSL)	Elevation Change (ft.)		
CP SODA BM	6634.90	6634.90	0.00		
CP CENTER SSM	6658.99	6658.93	-0.06		
CP NORTH SSM	6639.21	6639.20	-0.01		
CP EAST SSM	6669.52	6669.31	-0.21		
CP SOUTH SSM	6683.84	6683.71	-0.13		
CP WEST SSM	6669.77	6669.80	0.02		
CP 6 SSM	6682.88	6682.92	0.04		
CP 7 SSM	6706.52	6706.44	-0.08		
CP 8 SSM	6691.65	6691.63	-0.02		
CP 10 SSM	6687.41	6687.32	-0.09		
CP 11 SSM	6653.71	6653.60	-0.11		
CP 12 SSM	6702.11	6702.06	-0.05		
CP 13 SSM	6725.22	6725.20	-0.02		
CP 14 SSM	6758.42	6758.36	-0.06		
CP 15 SSM	6624.65	6624.61	-0.04		
10H SSM	6712.95	6712.51	-0.44		
11H SSM	6705.81	6705.16	-0.64		
12H SSM	6695.86	6695.36	-0.50		
12HA SSM	6661.41	6661.31	-0.10		
13H SSM	6684.47	6683.91	-0.57		
14H SSM	6675.20	6674.79	-0.41		
15X SSM	6694.41	6694.33	-0.07		
15H SSM	6702.35	6702.24	-0.10		
16H SSM	6713.03	6712.99	-0.04		
17H SSM	6719.06	6719.04	-0.01		
17HA SSM	6738.67	6738.51	-0.16		

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## 4.5. Water Supply Well Pumpage

In 2023, approximately 82.59 million gallons of water were pumped from water supply wells WSW-2, WSW-3, and WSW-4 with an average of 156.9 gpm. Included in the following Table 6 is a summary of water supply pumpage in 2023. The 2023 total pumpage increased 0.50 million gallons from the 2022 pumpage total of 82.09 million gallons. The 2023 total pumpage from WSW-2 was 99,900 gallons, WSW-3 was 41.13 million gallons, and the total pumpage from WSW-4 was 41.36 million gallons.

NS continued to release water from the WSW-3 and WSW-4 in 2023 to meet obligations for White River water rights call. The 2022 WY Augmentation Plan (88CW420) required NS to release 241,800 gallons (0.74 acre feet) of water per month during months the water call was in place outside of irrigation season. For the 2023 WY the amount of water required to be released was increased to 256,445 gallons (0.79 acre feet) of water per month. For calendar year 2023 the water call was in place January, February, March, November, and December. NS released 1,241.300 gallons of water in 2023, and 242,000 gallons in 2022 for a total of 1,483,300 gallons since the water rights call began in December 2022.

2023	WSW-2 (#074491-F)	WSW-3 (#077834-F)	WSW-4 (#077833-F)	Total	Avg.	Water Augmentation
Date	(gal)	(gal)	(gal)	(gal)	(gpm)	(gal)
Jan	2,500	2,521,500	2,584,600	5,108,600	114.4	242,000
Feb	3,000	2,445,500	2,594,200	5,042,700	125.1	242,000
Mar	3,300	3,573,600	3,828,800	7,405,700	165.9	242,000
Apr	5,400	3,261,600	2,839,400	6,106,400	141.4	0
Мау	0	3,806,500	3,751,400	7,557,900	169.3	0
Jun	6,000	3,466,500	3,381,800	6,854,300	158.7	0
Jul	1,100	3,744,600	3,915,800	7,661,500	171.6	0
Aug	21,800	3,777,000	3,870,500	7,669,300	171.8	0
Sep	7,800	3,500,200	3,539,800	7,047,800	163.1	0
Oct	20,700	4,067,800	4,073,200	8,161,700	182.8	0
Nov	2,900	3,524,200	3,500,600	7,027,700	162.7	258,500
Dec	25,400	3,445,200	3,477,900	6,948,500	155.7	256,800
Total:	99,900	41,134,200	41,358,000	82,592,100	156.88	1,241,300

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# 5.0 Environmental Monitoring and Protection

## 5.1. Hydrology Monitoring

### 5.1.1. Introduction

NS's hydrology monitoring program concentrates on groundwater, as there are no perennial streams or springs located on the NS's sodium leases. The USGS stream gauging station-monitoring program is conducted, with NS support, to provide regional surface stream flow data on Yellow Creek and Piceance Creek.

The hydrology-monitoring plan is designed to identify impacts of NS's solution mining operations on underground sources of drinking water, as designated by the US EPA.

Refer to Figure 3 and Figure 4 for the locations of existing monitor wells. Groundwater analytical results are presented in Appendix A.

## 5.1.1. Monitoring Wells

Per regulatory requirements, dedicated groundwater monitoring wells have been constructed to monitor four water-bearing intervals identified as the Perched, A-Groove, B-Groove, and the Dissolution Surface (DS) Aquifers. The DS Aquifer has been exempted as an underground source of drinking water in the NS lease and permit areas. The DS Aquifer monitored by NS contains total dissolved solids (TDS) values in excess of 10,000 parts per million (PPM). These four aquifers are monitored at several locations across the solution mining area: up and down-gradient, remote down-gradient, and near the southeast portion of Section 26. Baseline and current groundwater monitoring data have been obtained from 1991 through present. Refer to Figure 3 and Figure 4 or well locations.

The Perched Aquifer is characteristically lower in TDS, conductivity, fluoride, SAR (sodium absorption ratio) and moderate to higher in sulfate and pH. The A-Groove and B-Groove Aquifers are similar in water quality with moderate TDS, conductivity, SAR, but higher fluoride. However, the B-Groove Aquifer generally has slightly higher levels of TDS, conductivity, SAR, and fluoride. The DS Aquifer is characterized by very high TDS and conductivity (30,000 to >100,000 ppm), higher SAR, magnesium, potassium, moderate pH, and a generally higher fluoride and boron.

In 2023, the results of groundwater monitoring were analyzed for potential anomalies in order to prevent or mitigate potential negative impacts to the USDW's.

Appendix A contains detailed sampling results for groundwater monitoring wells.

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### 5.1.2. Storage and Evaporation Ponds

The NS storage and evaporation ponds have a secondary liner and are constructed to collect and direct any condensation or leakage to tubes for removal. Pond information is reported on a monthly basis. No changes occurred to the evaporations ponds in 2023, routine maintenance and monitoring continued throughout the year.

### 5.1.3. Potentiometric Surface Maps (Confidential)

Using groundwater potentiometric elevations from NS groundwater monitoring wells and other NS wells, A-Groove and B-Groove Aquifer potentiometric surface maps have been plotted and have been included with this report in Appendix B (Confidential).

### 5.1.4. Stream Gauging Stations

NS contracts with the USGS to monitor surface waters for water quality and quantity. Monitoring was performed upstream and downstream relative to the NS mining operations and with respect to Yellow Creek and Piceance Creek at four existing stations with extensive historical data. Historical stream gauging data is reported in this document and discharge data is complete through the 2023 water year (WY) (October 2022 – September 2023).

The USGS surface water data are available to the public from the USGS web site at http://co.water.usgs.gov. Table 7 and Table 8 summarize key 2023 WY data for surface water near the NS site. Data reported in Table 7 and Table 8 is compiled from the USGS web site. The Specific Conductance and Temperature data included in the tables were generated by using USGS lab test results for each stream reported on the USGS web site during the 2023 WY.

The USGS notes in the 2022 and 2023 year end water reports that the 6200 (Piceance Creek below Ryan Gulch) has diversions for irrigation upstream of the monitor station. The 6222 (Piceance Creek at White River) has diversions for irrigation of approximately 5,500 acres upstream from the monitor station. The 6255 (Yellow Creek near White River) has diversions to irrigate approximately 300 acres upstream from the monitor station. The 6242 (Corral Gulch near Rangely) which historically has been a low flow stream is not reported as having any diversions upstream from the monitoring station.

The 2023 WY discharge (cfs) data in this area indicated an increase in average stream discharge levels for the 6242 Corral Gulch, 6255 Yellow Creek, 6200 and 6222 Piceance Creek streams. 2023 discharge was above the average Period of Record (PR) historic levels, but did not reach the maximum discharge as seen in the 1984, 1985 and 1986 WY's. The 2011 WY was the last time similar discharge values to 2023 WY were recorded in the streams of interest.

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				Total Discharge 2023		Specific co	Temp (°c.)			
Station	Discharge	Discharge	Average Total Discharge			(µS/cm (				
Station	P of R*	2023 WY**	P of R		P of R	2023 WY	P of R	2023 WY	P of R	2023 WY
	<u>cfs</u>	<u>cfs</u>	<u>ac ft/yr</u>	<u>ac ft/yr</u>	<u>Max</u>	Max	<u>Min</u>	Min	Max	<u>Max</u>
<u>6200</u>	24.90 (58 yrs)	30.30	17,991	21,936	2,800	1,840	600	928	26.3	13.3
<u>6222</u>	30.40 (57 yrs)	36.90	22,008	26,714	7,240	2,970	516	1,150	30.0	15.9
<u>6242</u>	1.50 (48 yrs)	2.63	1,073	1,904	1,760	1,460	312	1,160	24.0	13.7
<u>6255</u>	2.30 (45 yrs)	2.42	1,672	1,752	5,330	4,710	460	2,160	31.0	17.6
6200 Piceance	Creek below Ryan	Gulch	6242 Corral Gulch near Rangely							
6222 Piceance	Creek at White Riv	er	6255 Yellow Creek near White River							
* P of R = Perio	od of Record for col	lection of data.	**WY = Water Year (October-September).							
cfs = cubic feet	per second, average	ge annual flow.	N/D = No data available at time of publication							

 Table 7: Historical Comparison with 2023 Water Year Data

### Table 8: Yellow and Piceance Creek Discharge Data up to 2023 Water Year

	Project Data Comparison													
Discharge for Water Years in cfs														
Station	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	2022	2023
6200	13.4	36.2	17.5	11.3	10.7	15.9	17.0	11.7	7.5	9.6	10.9	5.9	7.1	30.3
<u>6222</u>	17.6	41.7	19.2	11.8	13.0	19.7	21.2	15.5	8.9	11.6	12.4	7.4	8.2	36.9
<u>6242</u>	0.3	1.1	0.3	0.2	0.5	0.5	1.9	0.6	0.1	1.0	0.4	0.2	0.8	2.6
<u>6255</u>	0.9	1.3	1.2	1.1	1.2	1.3	1.3	1.7	0.8	1.6	0.9	0.5	2.0	2.4
Maximum Specific Conductance (μS/cm @ 25° C)														
Station	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	2020	<u>2021</u>	2022	2023
<u>6200</u>	2,020	1,460	1,610	1,930	2,040	1,770	1,840	2,120	1,700	1,740	1,590	2,100	1,760	1,840
<u>6222</u>	4,800	2,290	5,350	5,100	3,190	2,790	2,020	3,550	5,350	3,300	4,160	4,610	4,650	2,970
<u>6242</u>	1,460	1,280	1,480	1,430	1,400	1,330	1,170	1,280	1,490	1,480	1,260	1,440	1,470	1,460
<u>6255</u>	4,260	4,130	4,170	4,720	4,530	4,070	4,520	3,600	3,980	4,530	4,560	4,560	5,330	4,710
* P of R = Pe	* P of R = Period of Record for collection of data. **WY = Water					Year (October-September). cfs = cubic feet per second, average annual flow.								
6200 Picean	5200 Piceance Creek below Ryan Gulch					6242 Corral Gulch near Rangely								
6222 Picean	222 Piceance Creek at White River					6255 Yellow Creek near White River								
N/D No data	/D No data available at time of publication.													

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NS data indicated a precipitation decrease at the NS location in 2023 (9.81") compared to 2022 (10.35"). The 2023 precipitation at NS and was similar to the 2022 (10.35"). 2021 (10.09"), and 2020 (9.79") values, and approximately half that of 2019 (20.8"). A similar pattern of annual total precipitation (2019 WY through 2023 WY) can be observed thorough Piceance Creek Basin. Decreases and increases in precipitation and/or changes to irrigation diversions may be affecting stream flow discharge at some level, but it cannot account for the 2023 discharge increase. The increase in discharge is likely attributable to the measured snow pack levels (Snow Water Equivalent (Inches)) found in the Yampa-White-Little Snake Basin and the Colorado Headwaters Basin to the East and Northeast of NS. In 2011 WY the snow pack measurements in these two basins was similar to 2023 WY and the four streams experienced similar discharge rates. Figure 8 and Figure 9 below show the difference between 2022 WY and 2023 WY with regards to snow pack levels in the two basins and the discharge rates in the four streams. The maximum snow pack for the basins were recorded in 1984, 1985, and 1986 WY's, this also corresponds to the maximum stream discharge rates for all four streams.

The 2023 Specific Conductance data from USGS for the four stations were all within the range values for the period of record. The 6200 (Piceance Creek below Ryan Gulch) was the only stream location that had a slight increase in Specific Conductance in 2023, the other three streams had decreases in Max Specific Conductance from the 2022 to 2023 WY. The 2023 water temperature values were within the range of historic PR data. The water temperatures maximums for all four streams were approximately half the value of the PR all time maximums. Post review of the USGS data, no effect on stream water quality or quantity was noted due to the NS mining operations.

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Figure 8: Water Year 2022 Stream Flow (cfs) Vs. Snow Pack (Water Eqv (Inch))



Figure 9: Water Year 2023 Stream Flow (cfs) Vs. Snow Pack (Water Eqv (Inch))



## 5.2. Injection Well Mechanical Integrity (MIT)

### 5.2.1. MIT Introduction

The EPA Underground Injection Control (UIC) regulations require that an injection well have mechanical integrity at all time (40 CFR 144.28 (f)(2) and 40 CFR 144.51 (q)(1)). A well has mechanical integrity (40 CFR 146.8) if:

- There is no significant leak in the tubing, casing or packer; and
- There is no significant fluid movement into an underground source of drinking water (USDW) through vertical channels adjacent to the injection wellbore.

The mechanical integrity of an injection well must be maintained at all times. Mechanical integrity pressure tests are required initially upon construction and at least every five (5) years. If for any reason the tubing/packer is pulled, however, the injection well is required to pass another mechanical integrity test prior to recommencing injection regardless of when the last test was conducted. The Regional UIC program must be notified of the workover and the proposed date of the pressure test. The well's test cycle would then start from the date of the new test if the well passes the test and documentation is adequate. Tests may be required on a more frequent basis depending on the nature of the injectate and the construction of the well.

## 5.2.2. Mechanical Integrity, Part 1 Pressure Testing and Part 2 Temperature Logging

NS conducted routine, EPA mandated, MIT Part 1 pressure testing and/or Part 2 temperature logging in the following injection wells on the indicated dates, no anomalies were detected during any testing or logging. All required documentation was submitted to the EPA and cc'd to the BLM.

- 17H-IR-E MIT P2 (Initial) January 18, 2023
- 12H-IR MIT P2 (5 Year) February 17, 2023
- 12 H-IR MIT P1 (5 Year) February 24, 2023
- 13H-IR MIT P2 (5 Year) July 17, 2023
- 13H-IR MIT P1 (5 Year) July 18, 2023
- 15H-R(I) MIT P1 (5 Year) August 2, 2023
- 12H-I MIT P2 (10 Year) August 4, 2023
- 15H-R(I) MIT P2 (5 Year) July 31, 2023
- 13H-R(I) MIT P2 (5 Year) October 9, 2023
- 13H-R(I) MIT P1 (5 Year) October 10, 2023


# 6.0 Land Disturbance and Reclamation

# 6.1. Summary of 2023 Disturbance

NS created 5.68 acres of new disturbed acreage in 2023 by building the 18H-1V Pad (2.95 ac), 18H-1V access & pipeline road (0.53 ac), 18H-IR-W Pad (2.14 ac) and the 18H-IR-W access road (0.06 ac). The 17H-E SSMW location with a small access road (0.64 ac) categorized as disturbed was interim-reclaimed in the fall of 2023. Following the P&A of the 14H-R(I) well in summer 2023, the 14H-I&R pad (2.26 disturbed) was fully reclaimed in the fall. Three locations that were previously interim-reclaimed have been reclassified as reclaimed in 2023 due to the wells on the locations being P&A'ed; 2M & 3M TDR pad (0.13 ac), DS-2/BG-1 pad (0.15 ac) and the 4A-1V pad (1.33 ac). These three locations may require some additional dirt work in 2024.

The total disturbed acreage reported in 2022 was 98.85 acres, and in 2023 the NS land disturbance increased to 104.53 acres. The total affected acreage of NS operations increased in 2023 to 114.59 acres from 108.91 acres in 2022. The total affected acreage includes 10.06 acres that have been 'Recognized as Reclaimed by Agency'. Table 9 lists the disturbed acreage as of December 2023.

Process Area:	<u>Acres:</u>
Plant Site Disturbed	26.85
Plant Site Undergoing Interim Reclamation	4.46
Plant Site Undergoing Final Reclamation	0.00
Plant Site Successfully Reclaimed	0.00
Well Field:	
Roads Disturbed	3.07
Well Pads Disturbed	33.32
Roads/Misc. Undergoing Interim Reclamation	1.26
Well Pads Undergoing Interim Reclamation	13.71
Road/Misc. Undergoing Final Reclamation	3.14
Well Pads Undergoing Final Reclamation	18.72
Total Disturbance:	<u>104.53</u>
Road/Misc Recognized as Reclaimed by Agencies	1.05
Well Pads Recognized as Reclaimed by Agencies	9.01
Total Effected Acreage:	<u>114.59</u>

#### Table 9: Disturbed Acreage





# 6.2. Regulatory Compliance

### 6.2.1. Regulatory Activity

In 2023, required reports were submitted in a timely manner. Required forms were submitted to the appropriate agencies regarding activities pertaining to the new wells drilled & associated plugging and abandonment operations.

## 6.3. Reclamation Activity

### 6.3.1. Regrading & Scarification

Regrading, and scarification occurred in the fall of 2023 when the 17H-E-SSMW location was interim-reclaimed, and the 14H-I&R location was fully reclaimed by Moody Services.

## 6.3.2. Seeding & Weed Control

During the fall of 2023, seeding was conducted by Moody Services on the newly reclaimed 14H-I&R location and interim-reclaimed 17H-E SSMW pad. BG-9 access road was reseeded. The T & U locations had additional seeding performed by Moody Services in 2023.

Moody Services was contracted for weed management and sprayed active well pads, utility locations, pads undergoing reclamation, various roadways, and around facilities in 2023.

Annual vegetation monitoring continued in 2023 for the areas of study that are currently in final reclamation status. The report, *The 2023 Vegetation Monitoring Reclamation Status Report,* prepared by Mr. Rusty Roberts, is presented in Appendix C.

## 6.3.3. Reclamation Fencing

Repair and maintenance activities were performed, as necessary, on existing fences in 2023.

### 6.3.4. Precipitation

Perennial vegetation is an indicator of long-term precipitation, the "normal" precipitation for the NS site is 12-14 inches for the calendar year. The 32 year average at the NS site is 12.54 inches per year, and the 10 year average is 14.60 inches per year. The distribution of precipitation is important for proper reclamation. The 2023 precipitation as measured at the NS plant was 9.81 inches. 2023 marks the fourth year in a row that precipitation at NS was below the 32 year average and ranged from a low of 9.79 inches in 2020 to a high of 10.35 inches in 2022. Table 10 provides a composite of precipitation from the NS mine site for the last 10 years.

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					-						
Month/Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AVG
Jan	0.98	0.47	1.62	1.89	1.26	0.67	1.06	0.32	0.55	1.20	1.00
Feb	0.35	0.39	1.34	1.52	1.35	1.47	0.83	0.17	0.47	1.10	0.90
Mar	0.28	0.82	1.76	1.01	1.55	0.85	0.95	0.60	0.78	0.80	0.96
Apr	0.63	1.71	5.18	1.11	1.74	2.99	0.82	0.20	0.54	0.40	1.53
Мау	1.66	4.36	2.06	2.17	1.52	2.93	1.29	0.38	1.20	0.43	1.80
Jun	0.01	0.51	0.53	0.47	0.99	3.86	1.83	0.84	0.61	1.03	1.07
Jul	1.34	1.78	1.07	3.36	1.27	1.87	0.61	0.39	0.92	1.00	1.36
Aug	3.17	1.44	2.78	0.85	3.24	0.83	0.37	1.16	0.48	0.70	1.50
Sep	2.14	0.32	2.19	1.55	0.10	1.75	1.17	1.50	1.40	0.40	1.25
Oct	1.09	1.38	1.89	1.62	4.10	1.19	0.08	1.93	1.40	1.30	1.60
Nov	0.80	0.70	1.56	0.64	0.60	1.62	0.14	0.60	0.50	0.80	0.80
Dec	1.00	0.10	1.04	0.44	0.45	0.71	0.66	1.80	1.50	0.65	0.84
Annual Totals	13.45	13.97	23.02	16.63	18.17	20.75	9.79	10.09	10.35	9.81	14.60

Table 10: Annual Precipitation in inches (10 Year)

## 6.3.5. Vegetation Monitoring Results

A vegetation survey is undertaken annually on the NS lease to collect data from reclaimed land to monitor and evaluate the success of revegetation efforts.

In 2023 the vegetation survey focused on six reclaimed pad sites in final reclamation status, and four additional undisturbed areas for comparison purposes.

Five of the six locations studied are former core holes; BG-8, G, MMC-IRI-3, T, and U that are currently undergoing final reclamation. One former production well P&A location the 93-2M is in final reclamation status.

The continued dry conditions that occurred during the growing season in 2023 resulted in only minimal changes to the total vegetation cover and composition of desirable plant species as compared to the values measured in 2022 or with comparison to the undisturbed control areas. All of the sites showed improvement in the study. Pad G met the criteria for successful reclamation. Pat T and Pad U both have increases in Non-Native Invasive species that may require remediation in 2024 and possible reseeding. None of the above mentioned reclaimed sites achieved successful reclamation criteria in 2023. For details of the 2023 vegetation monitoring results, refer to Appendix C for the full *2023 Vegetation Monitoring Reclamation Status Report* prepared for NS by Mr. Rusty Roberts.

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# 6.4. Deer Roadkill Study

Per the monitoring requirement from the BLM, NS compiled deer road kill data throughout 2023 for vehicles traveling to and from the mine site. One deer (female sex) was reported as struck but ran from accident with unknown injuries to the animal. Six deer of unknown sex were reported as struck and killed in 2023. One additional deer of unknown sex was reported as struck but departed with unknown injuries to the animal.

# 6.5. Raptor Survey

On May 15 and 16, 2023 D&A, Inc. conducted a raptor breeding activity survey and inventory on behalf of NS in the pinion juniper habitat that is proximal to the planned 2024 production wells 18H-1V & 18H-IR-W, and planned 2025/2026 production wells 19H-1V & 19H-IR-E well drilling. A pedestrian survey, with the addition of call-playback techniques, was undertaken. The surveyed area included portions of sections 25, 26, 27, 34, 35, and 36 of T1S, R98W. The BLM WRFO assisted NS by identifying areas which may provide the most suitable raptor nesting habitat within the project area. One new nest was observed within the study area that was inactive/abandoned. Two known nest (one active, one inactive) were observed just outside of the study area. Ravens were observed in the southwest region of the study area, and the observance of the Ravens led to the discovery of Copper's Hawk occupying a nest outside of the 2023 survey area and was documented. Weather conditions during the survey were optimal with partly cloudy skies, short drizzle of rain on May 15, 2023, and full sun on May 16, 2023. Air temperatures during the survey ranged from 65 to 75 degrees Fahrenheit. A report was written and submitted to the BLM following completion of the survey. The area surveyed in 2023 included the areas of the planned 2024 well field development activities, therefore, per BLM guidelines, no raptor survey will be conducted in 2024.

# 6.6. Other Observations

Elk, deer, coyotes, rabbits, bobcat, badger and fox were noted in and around the well-field throughout the year.

# 6.7. Waste Disposal

Common domestic solid waste was collected in containers and periodically transported to the Rio Blanco County landfill. Sewage from the plant was directed to a septic system with a leach drain field. Process water, including cooling tower blowdowns, boiler ditch, plant wash down, blow down from the boilers, and precipitation runoff, was directed to the process pond. A pump in the process storage pond allows NS to recycle the water to the barren system. The wastewater evaporation pond contains water from the cooling tower overflow and laboratory drains.

Hazardous waste that is generated and collected at the NS facilities is contained safely, stored separately from day to day waste, and then disposed of properly by Clean Harbors, Inc., a certified hazardous waste handling/disposal company. NS did not dispose of any hazardous waste in 2023.





# **Natural Soda LLC**

# Appendix A: 2023 Groundwater Analytical Results





Daramotors	No. of						
Parameters Wet Chemistry	Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3		903.00	12/12/2008	41.00	01/30/1997	517.28	mg/l
Carbonate as CaCO3		566.00	01/30/1997	8.00	11/28/1990	91.18	mg/l
Total Alkalinity as CaCO3		926.00	12/12/2008	160.00	10/25/1990	606.84	mg/l
Bromide		3.00	06/26/1990	0.05	07/01/1997	0.44	mg/l
Cation-Anion Balance		63.40	04/14/2005	-28.80	08/02/2006	0.46	%
Sum of Anions	168	20.10	12/12/2008	11.66	11/28/1990	14.15	meq/l
Sum of Cations		67.50	04/14/2005	7.80	08/02/2006	14.40	meg/l
Chemical Oxygen Demand		220.00	09/22/2010	10.00	08/02/2006	80.23	mg/l
Chloride		118.00	10/22/1989	2.00	04/24/1991	19.12	mg/l
Conductivity, Lab		1,760.00	12/12/2008	1,000.00	05/20/1993	1,257.48	μmhos
Fluoride		30.00	12/19/1991	1.90	06/26/1991	21.33	mg/l
Hardness as CaCO3		375.00	05/21/2018	0.40	10/25/1990	11.70	mg/l
Nitrate as N, dissolved		5.76	08/10/2008	0.02	07/18/1995	0.53	mg/l
Nitrate/Nitrite as N,	28	6.26	08/10/2008	0.02	07/18/1995	0.56	mg/l
Nitrite as N, dissolved		0.20	08/10/2008	0.02	03/30/1990	0.13	mg/l
Nitrogen, Ammonia	26	3.77	08/10/2008	0.54	06/15/1992	1.30	mg/l
Nitrogen, Organic		14.60	09/27/1990	0.10	06/15/1992	4.37	mg/l
Nitrogen, Total Kjeldahl	26	15.40	09/27/1990	0.60	06/15/1992	5.49	mg/l
H. lab		9.70	12/20/1994	8.00	07/18/1995	8.92	
							units
Phosphate, total	22	155.00	06/25/2007	0.06	07/02/1998	10.79	mg/l
Phosphorus, total		0.46	06/26/1990	0.01	08/17/1993 05/21/2018	0.08 56.18	mg/l
SAR in Water		345.00	04/14/2005	0.21			none
Sulfate		445.00	06/26/1990	2.49	05/21/2018	40.76	mg/l
Sulfide		2.40	07/24/2002	0.02	07/15/2004	0.45	mg/l
Total Dissolved Solids		2,040.00	04/14/2005	494.00	10/25/1990	783.43	mg/l
Conductivity, Field		1,980.00	12/12/2008	620.00 6.80	03/16/1994 03/10/2015	1,222.41	umhos
pH, Field	241	10.00	08/22/1991	<u> </u>	03/10/2015	9.08	units
	101						
Temperature (°C), Field		17.40	07/01/2002	8.10	02/08/2021	12.30	(°C)
Temperature (°C), Field Water Level, Field							
Water Level, Field	107	17.40 545.20	07/01/2002 06/25/2014	8.10	02/08/2021 04/01/2003	12.30	(°C) Ft.
Water Level, Field Parameters	107 <b>No. of</b>	17.40	07/01/2002	8.10	02/08/2021	12.30	(°C)
Water Level, Field Parameters Metals	107 No. of Samples	17.40 545.20 <b>High</b>	07/01/2002 06/25/2014 Date	8.10 463.95 <b>Low</b>	02/08/2021 04/01/2003 Date	12.30 497.61 <b>Average</b>	(°C) Ft. Units
Water Level, Field Parameters Metals Aluminum, dissolved	107 <b>No. of</b> <b>Samples</b> 26	17.40 545.20 <b>High</b> 0.70	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989	8.10 463.95 <b>Low</b> 0.03	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997	12.30 497.61 <b>Average</b> 0.12	(°C) Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26	17.40 545.20 <b>High</b> 0.70 0.04	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991	8.10 463.95 Low 0.03 0.00	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992	12.30 497.61 <b>Average</b> 0.12 0.01	(°C) Ft. Units mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004	8.10 463.95 Low 0.03 0.00 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006	12.30 497.61 <b>Average</b> 0.12 0.01 0.04	(°C) Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990	8.10 463.95 Low 0.03 0.00 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01	(°C) Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 187	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.19	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37	(°C) Ft. <b>Units</b> mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 187 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.19 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01	(°C) Ft. Units mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 187 26 187 26 186	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.19 0.01 0.30	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 187 26 187 26 186 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.19 0.01 0.30 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 187 26 186 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.19 0.01 0.30 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 187 26 186 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.80	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.01 0.30 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 07/18/1995	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 187 26 186 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.80 0.05	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 10/22/1989	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 07/18/1995 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 187 26 186 26 26 26 26 26 26 26 26 26 2	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.07 0.01 0.80 0.05 0.13	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 10/22/1989 07/15/2004	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Calcium, dissolved           Calcium, dissolved           Copper, dissolved           Liron, dissolved           Lead, dissolved           Lithium, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 187 26 186 26 26 26 26 26 26 26 26 26 2	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.07 0.01 0.80 0.05 0.13 9.10	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 10/22/1989 07/15/2004 12/12/2008	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Calcium, dissolved           Calcium, dissolved           Chromium, dissolved           Lead, dissolved           Lithium, dissolved           Magnesium, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 187 26 186 26 26 26 26 26 26 26 26 26 2	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.07 0.01 0.80 0.05 0.13 9.10 0.14	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 10/22/1989 07/15/2004 12/12/2008 07/30/2003	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 04/27/2004 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Chromium, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Manganese, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 187 26 186 26 26 26 26 26 26 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.07 0.01 0.80 0.05 0.13 9.10 0.14 0.0006	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 10/22/1989 07/15/2004 12/12/2008 07/30/2003 06/15/1992	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 04/27/2004 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06 0.0004	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 187 26 186 26 26 26 26 26 26 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.80 0.05 0.13 9.10 0.14 0.0006 0.13	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 07/15/2004 12/12/2008 07/30/2003 06/15/1992 10/22/1989	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06 0.0004 0.05	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Calcium, dissolved           Chromium, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Manganese, dissolved           Molybdenum, dissolved           Molybdenum, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 187 26 186 26 26 26 26 26 26 26 26 26 2	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.80 0.05 0.13 9.10 0.14 0.0006 0.13 0.52	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 07/15/2004 12/12/2008 07/30/2003 06/15/1992 10/22/1989 07/30/2003	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06 0.0004 0.05 0.19	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Calcium, dissolved           Copper, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Manganese, dissolved           Molybdenum, dissolved           Nickel, dissolved           Nickel, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 187 26 26 26 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.80 0.05 0.13 9.10 0.14 0.0006 0.13 0.52 12.50	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 07/15/2004 12/12/2008 07/30/2003 06/15/1992 10/22/1989 07/30/2003 05/21/2018	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06 0.0004 0.05 0.19 1.34	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Calcium, dissolved           Chromium, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Manganese, dissolved           Molybdenum, dissolved           Nickel, dissolved           Nickel, dissolved           Selenium, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 187 26 26 26 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.07 0.01 0.80 0.05 0.13 9.10 0.14 0.0006 0.13 0.52 12.50 0.009	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 07/15/2004 12/12/2008 07/30/2003 06/15/1992 10/22/1989 07/30/2003 05/21/2018 09/27/1990	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.02 0.02	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06 0.0004 0.05 0.19 1.34 0.004	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Calcium, dissolved           Chromium, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Magnese, dissolved           Manganese, dissolved           Molybdenum, dissolved           Nickel, dissolved           Selenium, dissolved           Selenium, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 187 26 26 26 26 26 26 26 26 26 26	17.40 545.20 <b>High</b> 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.80 0.05 0.13 9.10 0.14 0.0006 0.13 0.52 12.50 0.009 27.70	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 07/15/2004 12/12/2008 07/30/2003 06/15/1992 10/22/1989 07/30/2003 05/21/2018 09/27/1990 01/09/2001	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.19 0.01 0.01 0.01 0.02 0.02 0.02 0.02 0.02	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 07/12/1996 10/22/1989 06/10/2020 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06 0.0004 0.05 0.19 1.34 0.004 12.52	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Calcium, dissolved           Chromium, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Magnese, dissolved           Manganese, dissolved           Molybdenum, dissolved           Nickel, dissolved           Selenium, dissolved           Selenium, dissolved           Sodium, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 187 26 26 26 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.80 0.05 0.13 9.10 0.14 0.0006 0.13 0.52 12.50 0.009 27.70 1,530.00	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 07/15/2004 12/12/2008 07/30/2003 06/15/1992 10/22/1989 07/30/2003 05/21/2018 09/27/1990 01/09/2001 04/14/2005	8.10 463.95 0.03 0.00 0.01 0.01 0.19 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 10/22/1989 06/10/2020 06/26/1990 12/10/2019 05/21/2018	12.30 497.61 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06 0.0004 0.05 0.19 1.34 0.004 12.52 321.05	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Calcium, dissolved           Chromium, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Magnese, dissolved           Molybdenum, dissolved           Nickel, dissolved           Potassium, dissolved           Selenium, dissolved           Sodium, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 187 26 26 26 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.80 0.05 0.13 9.10 0.14 0.0006 0.13 0.52 12.50 0.009 27.70 1,530.00 1.34	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 10/22/1989 07/15/2004 12/12/2008 07/30/2003 06/15/1992 10/22/1989 07/30/2003 05/21/2018 09/27/1990 01/09/2001 04/14/2005 12/12/2008	8.10 463.95 0.03 0.00 0.01 0.01 0.19 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 12/10/2019 06/26/1990	12.30 497.61 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06 0.0004 0.05 0.19 1.34 0.004 12.52 321.05 0.20	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Calcium, dissolved           Chromium, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Magnese, dissolved           Manganese, dissolved           Molybdenum, dissolved           Nickel, dissolved           Selenium, dissolved           Selenium, dissolved	107 <b>No. of</b> <b>Samples</b> 26 26 26 26 187 26 26 26 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.80 0.05 0.13 9.10 0.14 0.0006 0.13 0.52 12.50 0.009 27.70 1,530.00	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 07/15/2004 12/12/2008 07/30/2003 06/15/1992 10/22/1989 07/30/2003 05/21/2018 09/27/1990 01/09/2001 04/14/2005	8.10 463.95 0.03 0.00 0.01 0.01 0.19 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 10/22/1989 06/10/2020 06/26/1990 12/10/2019 05/21/2018	12.30 497.61 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06 0.0004 0.05 0.19 1.34 0.004 12.52 321.05	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Appx. Table A-1: 89-3 Annual Perched Aquifer

DAUB & ASSOCIATES, INC. AN THE AND NEW 10101



Devenatore	No of						
Parameters Wet Chemistry	No. of	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	Samples 125	548.00	01/08/2015	0.0000	08/01/1990	161.14	ma/l
							mg/l
Carbonate as CaCO3		300.00	10/25/1990	0.0000	08/30/2008	116.79	mg/l
Total Alkalinity as CaCO3		900.00	08/01/1990	96.40	08/10/2021	292.88	mg/l
Bromide		1.60	07/21/1993	0.06	06/16/2011	0.29	mg/l
Cation-Anion Balance		63.90	08/14/2017	-16.00	03/13/2003	0.66	%
Sum of Anions		24.97	08/13/1990	5.00	08/10/2021	8.83	meq/l
Sum of Cations		50.00	08/14/2017	5.70	06/14/2011	9.28	meq/l
Chemical Oxygen		300.00	09/21/2010	10.00	08/16/1994	44.18	mg/l
Chloride		400.00	04/24/1991	14.00	12/15/1992	53.43	mg/l
Conductivity, Lab		2,630.00	01/20/1992	347.00	08/10/2021	862.52	µmhos
Fluoride		24.00	09/02/1998	1.70	04/20/1992	6.41	mg/l
Hardness as CaCO3		553.00	08/01/1990	2.00	06/23/2010	36.02	mg/l
Nitrate as N, dissolved		2.77	06/26/2002	0.02	06/28/2006	0.35	mg/l
Nitrate/Nitrite as N,	28	2.79	06/26/2002	0.02	09/07/2022	0.32	mg/l
Nitrite as N, dissolved	28	0.13	08/16/1996	0.01	08/01/1990	0.05	mg/l
Nitrogen, Ammonia	27	2.57	07/31/1991	0.25	06/09/1999	0.73	mg/l
Nitrogen, Organic	27	3.90	07/21/1992	0.10	06/16/2011	1.00	mg/l
Nitrogen, Total Kjeldahl	27	5.90	07/31/1991	0.33	09/07/2022	1.73	mg/l
pH, lab		11.30	07/31/1991	6.60	08/30/2008	9.56	units
Phosphate, total		155.00	06/28/2006	0.03	09/07/2022	16.82	mg/l
Phosphorus, total		1.41	09/21/2010	0.01	09/07/2022	0.24	mg/l
SAR in Water		76.00	08/14/2017	5.76	08/01/1990	21.12	none
Sulfate		243.00	12/15/1992	39.20	08/07/2023	75.14	mg/l
Sulfide		4.00	06/13/2001	0.03	06/02/1998	1.08	mg/l
Total Dissolved Solids		1,644.00	08/01/1990	328.00	08/10/2021	579.21	mg/l
Conductivity, Field		3,500.00	08/01/1990	573.00	08/10/2021	1,140.47	μmhos
pH, Field		12.80	12/01/1990	6.04	08/30/2008	10.20	units
		12.00	12/01/1000			10.20	units
Temperature (°C) Field	123	20.90	08/07/2023			12 36	
Temperature (°C), Field		20.90	08/07/2023	6.50	12/12/2008	12.36	(°C)
Temperature (°C), Field Water Level, Field		20.90 387.19	08/07/2023 08/14/2017			12.36 380.42	
Water Level, Field	103	387.19	08/14/2017	6.50 308.80	12/12/2008 06/20/2017	380.42	(°C) Ft.
Water Level, Field Parameters	103 <b>No. of</b>			6.50	12/12/2008		(°C)
Water Level, Field Parameters Metals	103 No. of Samples	387.19 <b>High</b>	08/14/2017 Date	6.50 308.80 Low	12/12/2008 06/20/2017 Date	380.42 Average	(°C) Ft. Units
Water Level, Field Parameters Metals Aluminum, dissolved	103 No. of Samples 28	387.19 <b>High</b> 11.10	08/14/2017 <b>Date</b> 08/16/1996	6.50 308.80 Low 0.06	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009	380.42 Average 3.18	(°C) Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	103 <b>No. of</b> <u>Samples</u> 28 28	387.19 <b>High</b> 11.10 0.0060	08/14/2017 Date 08/16/1996 07/31/1991	6.50 308.80 Low 0.06 0.0005	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012	380.42 Average 3.18 0.0024	(°C) Ft. Units mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	103 <b>No. of</b> <u>Samples</u> 28 28 28 28	387.19 High 11.10 0.0060 0.29	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995	6.50 308.80 Low 0.06 0.0005 0.01	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012	380.42 Average 3.18 0.0024 0.07	(°C) Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 28 28 28	387.19 High 11.10 0.0060 0.29 0.012	08/14/2017 <b>Date</b> 08/16/1996 07/31/1991 08/14/1995 08/07/2023	6.50 308.80 Low 0.06 0.0005 0.01 0.003	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995	380.42 Average 3.18 0.0024	(°C) Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 28 28 28 125	387.19 High 11.10 0.0060 0.29 0.012 0.39	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015	6.50 308.80 Low 0.06 0.0005 0.01 0.003 0.00	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990	380.42 Average 3.18 0.0024 0.07 0.008 0.17	(°C) Ft. Units mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 28 28 125 28	387.19 High 11.10 0.0060 0.29 0.012 0.39 0.03	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015 07/21/1993	6.50 308.80 Low 0.06 0.0005 0.01 0.003 0.00 0.03	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990 07/21/1993	380.42 Average 3.18 0.0024 0.07 0.008 0.17 0.03	(°C) Ft. Units mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 28 28 125 28 125 28 125	387.19 High 11.10 0.0060 0.29 0.012 0.39 0.03 223.00	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015 07/21/1993 08/01/1990	6.50 308.80 Low 0.06 0.0005 0.01 0.003 0.00 0.03 0.90	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990 07/21/1993 06/23/2010	380.42 Average 3.18 0.0024 0.07 0.008 0.17 0.03 10.76	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 28 125 28 125 28 125 28	387.19 High 11.10 0.0060 0.29 0.012 0.39 0.03 223.00 0.02	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015 07/21/1993 08/01/1990 08/01/1990	6.50 308.80 Low 0.06 0.0005 0.01 0.003 0.00 0.03 0.90 0.01	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990 07/21/1993 06/23/2010 08/16/1996	380.42 <b>Average</b> 3.18 0.0024 0.07 0.008 0.17 0.03 10.76 0.01	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 28 125 28 125 28 125 28 28 28 28	387.19 High 11.10 0.0060 0.29 0.012 0.39 0.03 223.00 0.02 0.20	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015 07/21/1993 08/01/1990 08/01/1990 06/14/2000	6.50 308.80 Low 0.06 0.0005 0.01 0.003 0.00 0.03 0.90 0.01 0.01	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990 07/21/1993 06/23/2010 08/16/1996 08/01/1990	380.42 <b>Average</b> 3.18 0.0024 0.07 0.008 0.17 0.03 10.76 0.01 0.04	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 28 125 28 125 28 125 28 28 28 28 28 28	387.19 High 11.10 0.0060 0.29 0.012 0.39 0.03 223.00 0.02 0.02 0.20 14.10	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015 07/21/1993 08/01/1990 08/01/1990 06/14/2000 07/21/1993	6.50 308.80 Low 0.06 0.0005 0.01 0.003 0.00 0.03 0.90 0.01 0.01 0.02	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990 07/21/1993 06/23/2010 08/16/1996 08/01/1990 07/21/1992	380.42 Average 3.18 0.0024 0.07 0.008 0.17 0.03 10.76 0.01 0.04 3.09	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 125 28 125 28 125 28 28 28 28 28 28 28 28 28	387.19           High           11.10           0.0060           0.29           0.012           0.39           0.03           223.00           0.02           0.20           14.10           0.10	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015 07/21/1993 08/01/1990 08/01/1990 06/14/2000 07/21/1993 07/21/1993	6.50 308.80 0.06 0.0005 0.01 0.003 0.00 0.03 0.90 0.01 0.01 0.01 0.02 0.05	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990 07/21/1993 06/23/2010 08/16/1996 08/01/1990 07/21/1992 06/16/1997	380.42 <b>Average</b> 3.18 0.0024 0.07 0.008 0.17 0.03 10.76 0.01 0.04 3.09 0.07	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 28 125 28 125 28 125 28 28 28 28 28 28 28 28 28 28	387.19           High           11.10           0.0060           0.29           0.012           0.39           0.03           223.00           0.02           0.20           14.10           0.10           0.19	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015 07/21/1993 08/01/1990 08/01/1990 06/14/2000 07/21/1993 07/21/1993 08/13/1990	6.50 308.80 0.06 0.0005 0.01 0.003 0.00 0.03 0.90 0.01 0.01 0.01 0.02 0.05 0.00	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990 07/21/1993 06/23/2010 08/16/1996 08/01/1990 07/21/1992 06/16/1997 08/30/2008	380.42 <b>Average</b> 3.18 0.0024 0.07 0.008 0.17 0.03 10.76 0.01 0.04 3.09 0.07 0.05	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Calcium, dissolved           Calcium, dissolved           Chromium, dissolved           Liton, dissolved           Lead, dissolved           Lithium, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 28 125 28 125 28 125 28 28 28 28 28 28 28 28 28 28	387.19           High           11.10           0.0060           0.29           0.012           0.39           0.03           223.00           0.02           0.20           14.10           0.19           31.20	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015 07/21/1993 08/01/1990 08/01/1990 06/14/2000 07/21/1993 07/21/1993 08/13/1990 03/14/2000	6.50 308.80 0.06 0.0005 0.01 0.003 0.00 0.03 0.90 0.01 0.01 0.01 0.02 0.05 0.00 0.30	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990 07/21/1993 06/23/2010 08/16/1996 08/01/1990 07/21/1992 06/16/1997 08/30/2008 09/26/2001	380.42 <b>Average</b> 3.18 0.0024 0.07 0.008 0.17 0.03 10.76 0.01 0.04 3.09 0.07 0.05 2.58	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Calcium, dissolved           Calcium, dissolved           Chromium, dissolved           Lead, dissolved           Lithium, dissolved           Magnesium, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 28 125 28 125 28 28 28 28 28 28 28 28 28 28 28 28 28	387.19           High           11.10           0.0060           0.29           0.012           0.39           0.03           223.00           0.02           0.20           14.10           0.19           31.20           0.37	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015 07/21/1993 08/01/1990 08/01/1990 06/14/2000 07/21/1993 07/21/1993 07/21/1993 08/13/1990 03/14/2000 08/14/1995	6.50 308.80 0.06 0.0005 0.01 0.003 0.00 0.03 0.90 0.01 0.01 0.02 0.05 0.00 0.30 0.01	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990 07/21/1993 06/23/2010 08/16/1996 08/01/1990 07/21/1992 06/16/1997 08/30/2008 09/26/2001 08/30/2008	380.42 <b>Average</b> 3.18 0.0024 0.07 0.008 0.17 0.03 10.76 0.01 0.04 3.09 0.07 0.05 2.58 0.08	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Calcium, dissolved           Chromium, dissolved           Copper, dissolved           Lead, dissolved           Lithium, dissolved           Magnesium, dissolved           Manganese, dissolved           Mercury, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 28 125 28 125 28 28 28 28 28 28 28 28 28 28 28 28 28	387.19           High           11.10           0.0060           0.29           0.012           0.39           0.03           223.00           0.20           14.10           0.19           31.20           0.37           0.0002	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015 07/21/1993 08/01/1990 08/01/1990 06/14/2000 07/21/1993 07/21/1993 07/21/1993 08/13/1990 03/14/2000 08/14/1995 08/14/1995	6.50 308.80 0.06 0.0005 0.01 0.003 0.00 0.03 0.90 0.01 0.02 0.05 0.00 0.30 0.01 0.30 0.01 0.0002	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990 07/21/1993 06/23/2010 08/16/1996 08/01/1990 07/21/1992 06/16/1997 08/30/2008 09/26/2001 08/30/2008 08/14/1995	380.42 <b>Average</b> 3.18 0.0024 0.07 0.008 0.17 0.03 10.76 0.01 0.04 3.09 0.07 0.05 2.58 0.08 0.0002	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Calcium, dissolved           Chromium, dissolved           Copper, dissolved           Lead, dissolved           Lithium, dissolved           Magnesium, dissolved           Manganese, dissolved           Metals           Molybdenum, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 28 125 28 125 28 28 28 28 28 28 28 28 28 28 28 28 28	387.19           High           11.10           0.0060           0.29           0.012           0.39           0.03           223.00           0.20           14.10           0.19           31.20           0.37           0.0002           0.10	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015 07/21/1993 08/01/1990 06/14/2000 07/21/1993 07/21/1993 07/21/1993 08/13/1990 03/14/2000 08/14/1995 08/01/1990	6.50 308.80 0.06 0.0005 0.01 0.003 0.00 0.03 0.90 0.01 0.01 0.02 0.05 0.00 0.30 0.01 0.01 0.02 0.05 0.00 0.30 0.01	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990 07/21/1993 06/23/2010 08/16/1997 08/30/2008 09/26/2001 08/30/2008 08/14/1995 06/16/1997	380.42 <b>Average</b> 3.18 0.0024 0.07 0.008 0.17 0.03 10.76 0.01 0.04 3.09 0.07 0.05 2.58 0.08 0.0002 0.04	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Calcium, dissolved           Chromium, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Manganese, dissolved           Mercury, dissolved           Molybdenum, dissolved           Nickel, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 28 125 28 125 28 28 28 28 28 28 28 28 28 28 28 28 28	387.19           High           11.10           0.0060           0.29           0.012           0.39           0.03           223.00           0.02           0.20           14.10           0.19           31.20           0.37           0.0002           0.10           0.02	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015 07/21/1993 08/01/1990 06/14/2000 07/21/1993 07/21/1993 07/21/1993 08/13/1990 03/14/2000 08/14/1995 08/01/1990 10/25/1990	6.50 308.80 0.06 0.0005 0.01 0.003 0.00 0.03 0.90 0.01 0.02 0.05 0.00 0.30 0.01 0.0002 0.01 0.0002 0.01 0.01	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990 07/21/1993 06/23/2010 08/16/1996 08/01/1990 07/21/1992 06/16/1997 08/30/2008 08/14/1995 06/16/1997 08/16/1996	380.42 Average 3.18 0.0024 0.07 0.008 0.17 0.03 10.76 0.01 0.04 3.09 0.07 0.05 2.58 0.08 0.0002 0.04 0.01	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Calcium, dissolved           Chromium, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Manganese, dissolved           Molybdenum, dissolved           Molybdenum, dissolved           Nickel, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 28 125 28 125 28 28 28 28 28 28 28 28 28 28	387.19           High           11.10           0.0060           0.29           0.012           0.39           0.03           223.00           0.20           14.10           0.19           31.20           0.37           0.0002           0.10           0.12	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015 07/21/1993 08/01/1990 06/14/2000 07/21/1993 07/21/1993 08/13/1990 03/14/2000 08/14/1995 08/01/1990 10/25/1990 08/01/1990	6.50 308.80 0.06 0.0005 0.01 0.003 0.00 0.03 0.90 0.01 0.02 0.05 0.00 0.30 0.01 0.02 0.05 0.00 0.30 0.01 0.0002 0.01 0.01 1.00	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990 07/21/1993 06/23/2010 08/16/1996 08/01/1990 07/21/1992 06/16/1997 08/30/2008 09/26/2001 08/30/2008 09/26/2001 08/30/2008 09/26/2001 08/30/2008 08/14/1995 06/16/1997 08/16/1996 04/24/1991	380.42 Average 3.18 0.0024 0.07 0.008 0.17 0.03 10.76 0.01 0.04 3.09 0.07 0.05 2.58 0.08 0.0002 0.04 0.01 7.44	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Calcium, dissolved           Copper, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Manganese, dissolved           Molybdenum, dissolved           Nickel, dissolved           Nickel, dissolved           Selenium, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 125 28 125 28 28 28 28 28 28 28 28 28 28	387.19           High           11.10           0.0060           0.29           0.012           0.39           0.03           223.00           0.20           14.10           0.19           31.20           0.37           0.0002           0.10           0.12	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015 07/21/1993 08/01/1990 06/14/2000 07/21/1993 08/13/1990 03/14/2000 08/14/1995 08/01/1990 10/25/1990 08/01/1990 07/31/1991	6.50 308.80 Low 0.06 0.0005 0.01 0.003 0.00 0.03 0.90 0.01 0.02 0.05 0.00 0.30 0.01 0.002 0.01 0.002 0.01 0.002 0.01 0.001 0.01 1.00 0.001	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990 07/21/1993 06/23/2010 08/16/1996 08/01/1990 07/21/1992 06/16/1997 08/30/2008 09/26/2001 08/30/2008 09/26/2001 08/30/2008 08/14/1995 06/16/1997 08/16/1996 04/24/1991 08/07/2023	380.42 Average 3.18 0.0024 0.07 0.008 0.17 0.03 10.76 0.01 0.04 3.09 0.07 0.05 2.58 0.08 0.0002 0.04 0.01 7.44 0.0023	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Calcium, dissolved           Chromium, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Magnese, dissolved           Manganese, dissolved           Molybdenum, dissolved           Nickel, dissolved           Selenium, dissolved           Selenium, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 125 28 125 28 28 28 28 28 28 28 28 28 28	387.19           High           11.10           0.0060           0.29           0.012           0.39           0.03           223.00           0.02           0.20           14.10           0.19           31.20           0.37           0.0002           0.10           0.21           0.02	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015 07/21/1993 08/01/1990 06/14/2000 07/21/1993 08/13/1990 03/14/2000 08/14/1995 08/01/1990 10/25/1990 08/01/1991 08/01/1991 08/01/1991	6.50           308.80           Low           0.06           0.0005           0.01           0.003           0.00           0.01           0.00           0.03           0.90           0.01           0.02           0.05           0.00           0.30           0.01           0.001           0.001           0.001           0.01           0.01           0.01           0.01           0.01           0.01           0.01	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990 07/21/1993 06/23/2010 08/16/1996 08/01/1990 07/21/1992 06/16/1997 08/30/2008 09/26/2001 08/30/2008 09/26/2001 08/30/2008 08/14/1995 06/16/1997 08/16/1996 04/24/1991 08/07/2023 08/07/2023	380.42 Average 3.18 0.0024 0.07 0.008 0.17 0.03 10.76 0.01 0.04 3.09 0.07 0.05 2.58 0.08 0.0002 0.04 0.01 7.44 0.0023 28.78	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Chromium, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Magnese, dissolved           Marganese, dissolved           Molybdenum, dissolved           Nickel, dissolved           Selenium, dissolved           Selenium, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 125 28 125 28 28 28 28 28 28 28 28 28 28	387.19           High           11.10           0.0060           0.29           0.012           0.39           0.03           223.00           0.02           0.20           14.10           0.19           31.20           0.37           0.0002           0.10           0.37           0.002           146.00           0.0040           99.30           1,110.00	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015 07/21/1993 08/01/1990 06/14/2000 07/21/1993 08/13/1990 03/14/2000 08/14/1995 08/01/1990 10/25/1990 08/01/1991 08/01/1991 08/01/1991 08/14/1995 08/14/2017	6.50           308.80           Low           0.06           0.0005           0.01           0.003           0.00           0.03           0.01           0.02           0.01           0.03           0.90           0.01           0.02           0.05           0.00           0.30           0.01           0.02           0.01           0.002           0.01           0.001           0.001           1.00           0.0001           6.60           124.00	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990 07/21/1993 06/23/2010 08/16/1996 08/01/1990 07/21/1992 06/16/1997 08/30/2008 09/26/2001 08/30/2008 09/26/2001 08/30/2008 09/26/2001 08/30/2008 08/14/1995 06/16/1997 08/16/1996 04/24/1991 08/07/2023 08/07/2023	380.42 <b>Average</b> 3.18 0.0024 0.07 0.008 0.17 0.03 10.76 0.01 0.04 3.09 0.07 0.05 2.58 0.08 0.0002 0.04 0.01 7.44 0.0023 28.78 195.48	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Calcium, dissolved           Chromium, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Magnese, dissolved           Manganese, dissolved           Molybdenum, dissolved           Nickel, dissolved           Selenium, dissolved           Solica, dissolved           Strontium, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 28 125 28 28 28 28 28 28 28 28 28 28	387.19           High           11.10           0.0060           0.29           0.012           0.39           0.03           223.00           0.02           0.20           14.10           0.19           31.20           0.37           0.0002           0.10           0.22           146.00           99.30           1,110.00           2.45	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015 07/21/1993 08/01/1990 06/14/2000 07/21/1993 07/21/1993 07/21/1993 07/21/1993 08/13/1990 03/14/2000 08/14/1995 08/01/1990 07/31/1991 08/14/2017 08/01/1990	6.50           308.80           Low           0.06           0.0005           0.01           0.003           0.00           0.03           0.90           0.01           0.02           0.05           0.00           0.30           0.01           0.02           0.01           0.01           0.002           0.01           0.001           0.001           0.001           0.001           0.001           0.001           0.01           0.01           0.02	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990 07/21/1993 06/23/2010 08/16/1996 08/01/1990 07/21/1992 06/16/1997 08/30/2008 09/26/2001 08/30/2008 09/26/2001 08/30/2008 09/26/2001 08/30/2008 08/14/1995 06/16/1997 08/16/1996 04/24/1991 08/07/2023 08/07/2023 05/18/2021 05/24/1994	380.42 <b>Average</b> 3.18 0.0024 0.07 0.008 0.17 0.03 10.76 0.01 0.04 3.09 0.07 0.05 2.58 0.08 0.0002 0.04 0.01 7.44 0.0023 28.78 195.48 0.30	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Chromium, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Magnese, dissolved           Marganese, dissolved           Molybdenum, dissolved           Nickel, dissolved           Selenium, dissolved           Selenium, dissolved	103 <b>No. of</b> <b>Samples</b> 28 28 28 28 125 28 125 28 28 28 28 28 28 28 28 28 28	387.19           High           11.10           0.0060           0.29           0.012           0.39           0.03           223.00           0.02           0.20           14.10           0.19           31.20           0.37           0.0002           0.10           0.37           0.002           146.00           0.0040           99.30           1,110.00	08/14/2017 Date 08/16/1996 07/31/1991 08/14/1995 08/07/2023 01/08/2015 07/21/1993 08/01/1990 06/14/2000 07/21/1993 08/13/1990 03/14/2000 08/14/1995 08/01/1990 10/25/1990 08/01/1991 08/01/1991 08/01/1991 08/14/1995 08/14/2017	6.50           308.80           Low           0.06           0.0005           0.01           0.003           0.00           0.03           0.01           0.02           0.01           0.03           0.90           0.01           0.02           0.05           0.00           0.30           0.01           0.02           0.01           0.002           0.01           0.001           0.001           1.00           0.0001           6.60           124.00	12/12/2008 06/20/2017 <b>Date</b> 07/29/2009 11/27/2012 11/27/2012 08/14/1995 10/25/1990 07/21/1993 06/23/2010 08/16/1996 08/01/1990 07/21/1992 06/16/1997 08/30/2008 09/26/2001 08/30/2008 09/26/2001 08/30/2008 09/26/2001 08/30/2008 08/14/1995 06/16/1997 08/16/1996 04/24/1991 08/07/2023 08/07/2023	380.42 <b>Average</b> 3.18 0.0024 0.07 0.008 0.17 0.03 10.76 0.01 0.04 3.09 0.07 0.05 2.58 0.08 0.0002 0.04 0.01 7.44 0.0023 28.78 195.48	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

## Appx. Table A-2: MMC-IRI-1 Annual Perched Aquifer

DAUB & ASSOCIATES, INC. 20 Harris NEW 10101



<b></b> .					1		
Parameters	No. of	High	Date	Low	Date	Average	Units
Wet Chemistry	Samples	-	00/00/0000	0.00	10/10/1001		
Bicarbonate as CaCO3		327.00	06/30/2009	2.00	12/18/1991	183.47	mg/l
Carbonate as CaCO3		284.00	12/18/1991	0.00	06/14/2008	75.80	mg/l
Total Alkalinity as CaCO3		406.00	03/25/1992	181.00	05/29/2002	251.81	mg/l
Bromide		1.00	08/22/1991	0.00	08/12/1992	0.21	mg/l
Cation-Anion Balance		17.30	06/14/2008	-10.20	05/26/2004	0.74	%
Sum of Anions		15.77	06/16/1992	8.43	12/19/1995	9.91	meq/l
Sum of Cations		15.25	06/16/1992	7.90	05/26/2004	10.11	meq/l
Chemical Oxygen		181.00	11/02/2015	0.00	05/29/2002	52.07	mg/l
Chloride		420.00	06/16/1992	9.00	12/19/1995	20.60	mg/l
Conductivity, Lab		1,500.00	06/16/1992	795.00	08/12/1991	974.41	µmhos
Fluoride		0.90	09/16/1991	0.00	06/30/1995	0.29	mg/l
Hardness as CaCO3	63	182.00	06/14/2008	1.00	12/20/1993	34.57	mg/l
Nitrate as N, dissolved	34	12.50	05/29/2002	0.00	08/12/1992	0.97	mg/l
Nitrate/Nitrite as N,		12.50	05/29/2002	0.00	08/12/1992	0.82	mg/l
Nitrite as N, dissolved		0.07	02/12/2023	0.00	08/12/1992	0.02	mg/l
Nitrogen, Ammonia		0.87	06/23/1994	0.08	05/21/2007	0.27	mg/l
Nitrogen, Organic		80.00	05/15/1998	0.20	03/09/2020	5.10	mg/l
Nitrogen, Total Kjeldahl		80.00	05/15/1998	0.30	03/09/2020	4.60	mg/l
pH, lab		11.90	06/28/1993	2.40	06/16/1992	9.20	units
Phosphate, total		155.00	07/29/2009	0.06	05/29/2002	<u> </u>	mg/l
Phosphorus, total		1.87	06/18/1996	0.02	05/29/2002	0.20	mg/l
SAR in Water		90.44	01/20/1994	7.50	06/30/2009	21.87	none
Sulfate		290.00	03/25/1992	148.00	03/22/1996	204.14	mg/l
Sulfide		6.60	03/09/2020	0.05	06/14/2008	0.56	mg/l
Total Dissolved Solids		1,090	06/16/1992	504	04/21/1994	629	mg/l
Conductivity, Field		9,880	05/21/2007	715	12/19/1995	1,166	µmhos
pH, Field		12.00	08/12/1992	6.33	06/14/2008	9.84	units
	75	12.00	00/12/1332			3 04	unins
Tomporature (%C) Field	26	17					
Temperature (°C), Field		17	06/14/2008	9.70	11/01/2002	12	(°C)
Temperature (°C), Field Water Level, Field		17 248.06					
Water Level, Field	63	248.06	06/14/2008 06/15/2010	9.70 237.80	11/01/2002 11/09/2022	12 240.65	(°C) Ft.
Water Level, Field Parameters	63 <b>No. of</b>		06/14/2008	9.70	11/01/2002	12	(°C)
Water Level, Field Parameters Metals	63 No. of Samples	248.06 High	06/14/2008 06/15/2010 Date	9.70 237.80 Low	11/01/2002 11/09/2022 Date	12 240.65 Average	(°C) Ft. Units
Water Level, Field Parameters Metals Aluminum, dissolved	63 No. of Samples 33	248.06 <b>High</b> 10.00	06/14/2008 06/15/2010 <b>Date</b> 08/22/1992	9.70 237.80 Low 0.04	11/01/2002 11/09/2022 <b>Date</b> 05/29/2003	12 240.65 <b>Average</b> 1.01	(°C) Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33	248.06 High 10.00 0.0060	06/14/2008 06/15/2010 <b>Date</b> 08/22/1992 06/18/1996	9.70 237.80 Low 0.04 0.0003	11/01/2002 11/09/2022 Date 05/29/2003 05/26/2004	12 240.65 <b>Average</b> 1.01 0.0015	(°C) Ft. Units mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 33	248.06 High 10.00 0.0060 0.270	06/14/2008 06/15/2010 <b>Date</b> 08/22/1992 06/18/1996 05/21/2007	9.70 237.80 Low 0.04 0.0003 0.013	11/01/2002 11/09/2022 Date 05/29/2003 05/26/2004 05/26/2004	12 240.65 <b>Average</b> 1.01 0.0015 0.040	(°C) Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 33 33 33	248.06 High 10.00 0.0060 0.270 0.005	06/14/2008 06/15/2010 <b>Date</b> 08/22/1992 06/18/1996 05/21/2007 08/22/1992	9.70 237.80 Low 0.04 0.0003 0.013 0.005	11/01/2002 11/09/2022 Date 05/29/2003 05/26/2004 05/26/2004 08/22/1992	12 240.65 <b>Average</b> 1.01 0.0015 0.040 0.005	(°C) Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 33 33 33 63	248.06 High 10.00 0.0060 0.270 0.005 0.11	06/14/2008 06/15/2010 <b>Date</b> 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005	9.70 237.80 Low 0.04 0.0003 0.013 0.005 0.02	11/01/2002 11/09/2022 <b>Date</b> 05/29/2003 05/26/2004 05/26/2004 08/22/1992 08/22/1997	12 240.65 <b>Average</b> 1.01 0.0015 0.040 0.005 0.07	(°C) Ft. Units mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 33 33 63 33 63 33	248.06 High 10.00 0.0060 0.270 0.005 0.11 0.0050	06/14/2008 06/15/2010 <b>Date</b> 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005 08/22/1992	9.70 237.80 Low 0.04 0.003 0.013 0.005 0.02 0.02 0.0000	11/01/2002 11/09/2022 <b>Date</b> 05/29/2003 05/26/2004 05/26/2004 08/22/1992 08/22/1997 03/22/2016	12 240.65 <b>Average</b> 1.01 0.0015 0.040 0.005 0.07 0.0025	(°C) Ft. Units mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 33 63 63 33 63 63	248.06 High 10.00 0.0060 0.270 0.005 0.11 0.0050 63.60	06/14/2008 06/15/2010 <b>Date</b> 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005 08/22/1992 06/14/2008	9.70 237.80 <b>Low</b> 0.04 0.0003 0.013 0.005 0.02 0.0000 1.00	11/01/2002 11/09/2022 <b>Date</b> 05/29/2003 05/26/2004 05/26/2004 08/22/1992 08/22/1997 03/22/2016 06/16/1992	12 240.65 <b>Average</b> 1.01 0.0015 0.040 0.005 0.07 0.0025 7.22	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 33 63 63 33 63 33 63 33	248.06 High 10.00 0.0060 0.270 0.005 0.11 0.0050 63.60 0.02	06/14/2008 06/15/2010 <b>Date</b> 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005 08/22/1992 06/14/2008 08/22/1992	9.70 237.80 Low 0.04 0.003 0.013 0.005 0.02 0.0000 1.00 0.01	11/01/2002 11/09/2022 <b>Date</b> 05/29/2003 05/26/2004 05/26/2004 08/22/1992 08/22/1997 03/22/2016 06/16/1992 06/23/1994	12 240.65 <b>Average</b> 1.01 0.0015 0.040 0.005 0.07 0.0025 7.22 0.01	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 33 63 63 33 63 33 63 33 33 33	248.06 High 10.00 0.0060 0.270 0.005 0.11 0.0050 63.60 0.02 0.04	06/14/2008 06/15/2010 <b>Date</b> 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005 08/22/1992 06/14/2008 08/22/1992 06/25/2019	9.70 237.80 Low 0.04 0.003 0.013 0.005 0.02 0.0000 1.00 0.01 0.01	11/01/2002 11/09/2022 <b>Date</b> 05/29/2003 05/26/2004 05/26/2004 08/22/1992 08/22/1997 03/22/2016 06/16/1992 06/23/1994	12 240.65 <b>Average</b> 1.01 0.0015 0.040 0.005 0.07 0.0025 7.22 0.01 0.02	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 33 63 63 63 33 63 33 63 33 33 33	248.06 High 10.00 0.0060 0.270 0.005 0.11 0.0050 63.60 0.02 0.04 7.30	06/14/2008 06/15/2010 <b>Date</b> 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005 08/22/1992 06/14/2008 08/22/1992 06/25/2019 08/22/1992	9.70 237.80 0.04 0.0003 0.013 0.005 0.02 0.0000 1.00 0.01 0.01 0.01	11/01/2002 11/09/2022 <b>Date</b> 05/29/2003 05/26/2004 05/26/2004 08/22/1992 08/22/1997 03/22/2016 06/16/1992 06/23/1994 06/23/1994 05/26/2004	12 240.65 <b>Average</b> 1.01 0.0015 0.040 0.005 0.07 0.0025 7.22 0.01 0.02 0.61	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 33 63 63 63 63 63 33 63 33 63 33 3	248.06 High 10.00 0.0060 0.270 0.005 0.11 0.0050 63.60 0.02 0.04 7.30 0.12	06/14/2008 06/15/2010 <b>Date</b> 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005 08/22/1992 06/14/2008 08/22/1992 06/25/2019 08/22/1992 03/22/2016	9.70 237.80 0.04 0.0003 0.013 0.005 0.02 0.0000 1.00 0.01 0.01 0.01 0.01 0.	11/01/2002 11/09/2022 <b>Date</b> 05/29/2003 05/26/2004 05/26/2004 08/22/1992 08/22/1997 03/22/2016 06/16/1992 06/23/1994 06/23/1994 05/26/2004 08/12/1991	12 240.65 <b>Average</b> 1.01 0.0015 0.040 0.005 0.07 0.0025 7.22 0.01 0.02 0.61 0.05	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 33 63 63 63 63 63 33 63 33 33 33	248.06 High 10.00 0.0060 0.270 0.005 0.11 0.0050 63.60 0.02 0.04 7.30 0.12 0.06	06/14/2008 06/15/2010 <b>Date</b> 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005 08/22/1992 06/14/2008 08/22/1992 06/25/2019 08/22/1992 03/22/2016 10/03/2012	9.70 237.80 0.04 0.0003 0.013 0.005 0.02 0.0000 1.00 0.01 0.01 0.01 0.01 0.	11/01/2002 11/09/2022 <b>Date</b> 05/29/2003 05/26/2004 05/26/2004 08/22/1992 08/22/1997 03/22/2016 06/16/1992 06/23/1994 06/23/1994 05/26/2004 08/12/1991 02/12/2023	12 240.65 <b>Average</b> 1.01 0.0015 0.040 0.005 0.07 0.0025 7.22 0.01 0.02 0.61 0.05 0.03	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 33 63 63 33 63 33 63 33 3	248.06 High 10.00 0.0060 0.270 0.005 0.11 0.0050 63.60 0.02 0.04 7.30 0.12 0.06 9.10	06/14/2008 06/15/2010 <b>Date</b> 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005 08/22/1992 06/14/2008 08/22/1992 06/25/2019 08/22/1992 03/22/2016 10/03/2012 06/30/2009	9.70 237.80 0.04 0.0003 0.013 0.005 0.02 0.0000 1.00 0.01 0.01 0.01 0.01 0.	11/01/2002 11/09/2022 05/29/2003 05/26/2004 05/26/2004 08/22/1992 08/22/1997 03/22/2016 06/16/1992 06/23/1994 06/23/1994 05/26/2004 08/12/1991 02/12/2023 06/30/1995	12 240.65 <b>Average</b> 1.01 0.0015 0.040 0.005 0.07 0.0025 7.22 0.01 0.02 0.61 0.05 0.03 4.65	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	63 No. of Samples 33 33 33 33 63 63 33 63 33 33 33 33 33	248.06 High 10.00 0.0060 0.270 0.005 0.11 0.0050 63.60 0.02 0.04 7.30 0.12 0.04 7.30 0.12 0.06 9.10 0.07	06/14/2008 06/15/2010 <b>Date</b> 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005 08/22/1992 06/14/2008 08/22/1992 06/25/2019 08/22/1992 03/22/2016 10/03/2012 06/30/2009 08/22/1992	9.70 237.80 0.04 0.0003 0.013 0.005 0.02 0.0000 1.00 0.01 0.01 0.01 0.01 0.	11/01/2002 11/09/2022 05/29/2003 05/26/2004 05/26/2004 08/22/1992 08/22/1997 03/22/2016 06/16/1992 06/23/1994 06/23/1994 06/23/1994 05/26/2004 08/12/1991 02/12/2023 06/30/1995 08/22/1997	12 240.65 <b>Average</b> 1.01 0.0015 0.040 0.005 0.07 0.0025 7.22 0.01 0.02 0.61 0.02 0.61 0.05 0.03 4.65 0.02	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 33 63 63 33 63 33 33 33	248.06 High 10.00 0.0060 0.270 0.005 0.11 0.0050 63.60 0.02 0.04 7.30 0.12 0.06 9.10 0.07 0.07 0.0001	06/14/2008 06/15/2010 <b>Date</b> 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005 08/22/1992 06/14/2008 08/22/1992 06/25/2019 08/22/1992 03/22/2016 10/03/2012 06/30/2009 08/22/1992	9.70 237.80 0.04 0.003 0.013 0.005 0.02 0.0000 1.00 0.01 0.01 0.01 0.01 0.	11/01/2002 11/09/2022 05/29/2003 05/26/2004 05/26/2004 08/22/1992 08/22/1997 03/22/2016 06/16/1992 06/23/1994 06/23/1994 05/26/2004 08/12/1991 02/12/2023 06/30/1995 08/22/1997 08/22/1992	12 240.65 <b>Average</b> 1.01 0.0015 0.040 0.005 0.07 0.0025 7.22 0.01 0.02 0.61 0.02 0.61 0.05 0.03 4.65 0.02 0.0001	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Molybdenum, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 33 63 63 33 63 33 33 33	248.06 High 10.00 0.0060 0.270 0.005 0.11 0.0050 63.60 0.02 0.04 7.30 0.12 0.04 7.30 0.12 0.06 9.10 0.07 0.07 0.0001 0.03	06/14/2008 06/15/2010 <b>Date</b> 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005 08/22/1992 06/14/2008 08/22/1992 03/22/2016 10/03/2012 06/30/2009 08/22/1992 08/22/1992 08/22/1992 08/22/1992	9.70 237.80 0.04 0.0003 0.013 0.005 0.02 0.0000 1.00 0.01 0.01 0.01 0.02 0.02	11/01/2002 11/09/2022 05/29/2003 05/26/2004 05/26/2004 08/22/1992 08/22/1997 03/22/2016 06/16/1992 06/23/1994 06/23/1994 05/26/2004 08/12/1991 02/12/2023 06/30/1995 08/22/1997 08/22/1992 06/18/1996	12 240.65 <b>Average</b> 1.01 0.0015 0.040 0.005 0.07 0.0025 7.22 0.01 0.02 0.61 0.02 0.61 0.05 0.03 4.65 0.02 0.0001 0.02	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 33 63 33 63 33 33 33 33	248.06 High 10.00 0.0060 0.270 0.005 0.11 0.0050 63.60 0.02 0.04 7.30 0.12 0.04 7.30 0.12 0.06 9.10 0.07 0.0001 0.03 0.04	06/14/2008 06/15/2010 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005 08/22/1992 06/14/2008 08/22/1992 06/25/2019 08/22/1992 03/22/2016 10/03/2012 06/30/2009 08/22/1992 08/22/1992 08/22/1992 06/14/2008 07/29/2009	9.70 237.80 0.04 0.003 0.013 0.005 0.02 0.0000 1.00 0.01 0.01 0.01 0.02 0.02	11/01/2002 11/09/2022 05/29/2003 05/26/2004 05/26/2004 08/22/1992 08/22/1997 03/22/2016 06/16/1992 06/23/1994 06/23/1994 05/26/2004 08/12/1991 02/12/2023 06/30/1995 08/22/1997 08/22/1992 06/18/1996 08/22/1992	12 240.65 <b>Average</b> 1.01 0.0015 0.040 0.005 0.07 0.0025 7.22 0.01 0.02 0.61 0.03 4.65 0.02 0.0001 0.02 0.0001 0.02	(°C) Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 33 63 33 63 33 33 33 63 33 3	248.06 High 10.00 0.0060 0.270 0.005 0.11 0.0050 63.60 0.02 0.04 7.30 0.12 0.04 7.30 0.12 0.06 9.10 0.07 0.0001 0.03 0.04 22.00	06/14/2008 06/15/2010 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005 08/22/1992 06/14/2008 08/22/1992 06/25/2019 08/22/1992 03/22/2016 10/03/2012 06/30/2009 08/22/1992 08/22/1992 08/22/1992 08/22/1992 06/14/2008 07/29/2009 12/18/1991	9.70 237.80 0.04 0.003 0.013 0.005 0.02 0.000 1.00 0.01 0.01 0.01 0.02 0.02	11/01/2002 11/09/2022 05/29/2003 05/26/2004 05/26/2004 08/22/1992 08/22/1997 03/22/2016 06/16/1992 06/23/1994 05/26/2004 08/12/1991 02/12/2023 06/30/1995 08/22/1997 08/22/1992 06/18/1996 08/22/1992	12 240.65 <b>Average</b> 1.01 0.0015 0.040 0.005 0.07 0.0025 7.22 0.01 0.02 0.61 0.02 0.03 4.65 0.02 0.0001 0.02 0.03 7.14	(°C) Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Marcury, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 33 63 33 63 33 33 33 63 33 3	248.06 High 10.00 0.0060 0.270 0.005 0.11 0.0050 63.60 0.02 0.04 7.30 0.12 0.06 9.10 0.07 0.0001 0.03 0.04 22.00 0.001	06/14/2008 06/15/2010 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005 08/22/1992 06/14/2008 08/22/1992 06/25/2019 08/22/1992 06/30/2009 08/22/1992 06/30/2009 08/22/1992 06/22/1992 08/22/1992 06/14/2008 07/29/2009 12/18/1991 08/12/1991	9.70 237.80 0.04 0.003 0.013 0.005 0.02 0.000 1.00 0.01 0.01 0.01 0.02 0.02	11/01/2002 11/09/2022 05/29/2003 05/26/2004 05/26/2004 08/22/1992 08/22/1997 03/22/2016 06/16/1992 06/23/1994 06/23/1994 05/26/2004 08/12/1991 08/22/1992 06/18/1996 08/22/1992 06/25/2019 08/22/1991	12 240.65 <b>Average</b> 1.01 0.0015 0.040 0.005 0.07 0.0025 7.22 0.01 0.02 0.61 0.02 0.03 4.65 0.02 0.0001 0.02 0.0001 0.02 0.03 7.14 0.001	(°C) Ft. mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Marcury, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 33 63 33 63 33 33 33 63 33 3	248.06 High 10.00 0.0060 0.270 0.005 0.11 0.0050 63.60 0.02 0.04 7.30 0.12 0.06 9.10 0.07 0.0001 0.03 0.04 22.00 0.001 74.00	06/14/2008 06/15/2010 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005 08/22/1992 06/14/2008 08/22/1992 06/25/2019 08/22/1992 06/30/2009 08/22/1992 08/22/1992 08/22/1992 06/14/2008 07/29/2009 12/18/1991 08/22/1992	9.70 237.80 0.04 0.003 0.013 0.005 0.02 0.000 1.00 0.01 0.01 0.01 0.02 0.02	11/01/2002 11/09/2022 05/29/2003 05/26/2004 05/26/2004 05/26/2004 08/22/1992 08/22/1997 03/22/2016 06/16/1992 06/23/1994 05/26/2004 08/12/1991 02/12/2023 06/30/1995 08/22/1992 06/18/1996 08/22/1992 06/25/2019 08/22/1991 03/21/2017	12 240.65 <b>Average</b> 1.01 0.0015 0.040 0.005 0.07 0.0025 7.22 0.01 0.02 0.61 0.02 0.03 4.65 0.02 0.0001 0.02 0.0001 0.02 0.03 7.14 0.001 18.09	(°C) Ft. mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Selenium, dissolved Silica, dissolved Sodium, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 33 63 33 63 33 33 33 33	248.06 High 10.00 0.0060 0.270 0.005 0.11 0.0050 63.60 0.02 0.04 7.30 0.12 0.06 9.10 0.07 0.001 0.03 0.04 22.00 0.001 74.00 336.00	06/14/2008 06/15/2010 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005 08/22/1992 06/14/2008 08/22/1992 06/25/2019 08/22/1992 06/30/2009 08/22/1992 06/30/2009 08/22/1992 06/14/2008 07/29/2009 12/18/1991 08/22/1992 06/12/1991 08/22/1992	9.70 237.80 0.04 0.003 0.013 0.005 0.02 0.000 1.00 0.01 0.01 0.01 0.02 0.02	11/01/2002 11/09/2022 05/29/2003 05/26/2004 05/26/2004 08/22/1992 08/22/1997 03/22/2016 06/16/1992 06/23/1994 05/26/2004 08/12/1991 02/12/2023 06/30/1995 08/22/1992 06/18/1996 08/22/1992 06/25/2019 08/22/1991 03/21/2017 05/26/2004	12 240.65 Average 1.01 0.0015 0.040 0.005 0.07 0.0025 7.22 0.01 0.02 0.61 0.02 0.03 4.65 0.02 0.0001 0.02 0.03 7.14 0.001 18.09 207.98	(°C) Ft. mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved Strontium, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 63 33 63 33 33 33 33 33	248.06 High 10.00 0.0060 0.270 0.005 0.11 0.0050 63.60 0.02 0.04 7.30 0.12 0.06 9.10 0.07 0.001 0.03 0.04 22.00 0.001 74.00 336.00 1.30	06/14/2008 06/15/2010 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005 08/22/1992 06/14/2008 08/22/1992 06/25/2019 08/22/1992 06/30/2009 08/22/1992 06/14/2008 07/29/2009 12/18/1991 08/22/1992 06/12/1991 08/22/1992 06/16/1992 06/30/2009	9.70 237.80 0.04 0.003 0.003 0.005 0.02 0.000 1.00 0.01 0.01 0.01 0.01 0.0	11/01/2002 11/09/2022 05/29/2003 05/26/2004 05/26/2004 08/22/1992 08/22/1997 03/22/2016 06/16/1992 06/23/1994 05/26/2004 08/12/1991 02/12/2023 06/30/1995 08/22/1992 06/18/1996 08/22/1992 06/25/2019 08/22/1991 03/21/2017 05/26/2004 06/16/1992	12 240.65 Average 1.01 0.0015 0.040 0.005 0.07 0.0025 7.22 0.01 0.02 0.61 0.02 0.61 0.03 4.65 0.02 0.001 0.02 0.0001 0.02 0.03 7.14 0.001 18.09 207.98 0.50	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	63 <b>No. of</b> <b>Samples</b> 33 33 63 63 33 63 33 33 63 33 3	248.06 High 10.00 0.0060 0.270 0.005 0.11 0.0050 63.60 0.02 0.04 7.30 0.12 0.06 9.10 0.07 0.001 0.03 0.04 22.00 0.001 74.00 336.00	06/14/2008 06/15/2010 08/22/1992 06/18/1996 05/21/2007 08/22/1992 11/21/2005 08/22/1992 06/14/2008 08/22/1992 06/25/2019 08/22/1992 06/30/2009 08/22/1992 06/30/2009 08/22/1992 06/14/2008 07/29/2009 12/18/1991 08/22/1992 06/12/1991 08/22/1992	9.70 237.80 0.04 0.003 0.013 0.005 0.02 0.000 1.00 0.01 0.01 0.01 0.02 0.02	11/01/2002 11/09/2022 05/29/2003 05/26/2004 05/26/2004 08/22/1992 08/22/1997 03/22/2016 06/16/1992 06/23/1994 05/26/2004 08/12/1991 02/12/2023 06/30/1995 08/22/1992 06/18/1996 08/22/1992 06/25/2019 08/22/1991 03/21/2017 05/26/2004	12 240.65 Average 1.01 0.0015 0.040 0.005 0.07 0.0025 7.22 0.01 0.02 0.61 0.02 0.03 4.65 0.02 0.0001 0.02 0.03 7.14 0.001 18.09 207.98	(°C) Ft. mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

## Appx. Table A-3: MMC-IRI-5 Annual Perched Aquifer

DAUB & ASSOCIATES, INC. AN THE AND NEW 10101



Doromotoro	No. of						
Parameters Wet Chemistry	Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3		602	04/24/2023	395	09/03/2021	474	mg/l
Carbonate as CaCO3		124	09/10/2021	39	06/03/2022	72	mg/l
Total Alkalinity as CaCO3		602	04/24/2023	479	09/03/2021	535	mg/l
Bromide		<u> </u>	08/21/2021	<u> </u>	06/03/2022	<u> </u>	mg/l
Cation-Anion Balance		2.60	09/03/2021	-2.60	11/12/2021	0.02	%
Sum of Anions		22.00	04/24/2023	19.00	09/03/2021	20.17	meq/l
Sum of Cations		21.00	08/21/2021	19.00	11/12/2021	20.17	meg/l
Chemical Oxygen Demand		48.00	08/21/2021	20.00	09/03/2021	34.00	mg/l
Chloride		16	04/24/2023	7	08/21/2021	12	mg/l
Conductivity, Lab		1,730	04/24/2023	1,630	09/03/2021	1,675	µmhos
Fluoride		0.65	06/03/2022	0.65	06/03/2022	0.65	mg/l
Hardness as CaCO3		630.00	04/24/2023	470.00	11/12/2021	551.83	mg/l
Nitrate as N, dissolved		UH	08/21/2021	UH	06/03/2022	UH	mg/l
Nitrate/Nitrite as N,	5	UH	08/21/2021	UH	06/03/2022	UH	mg/l
Nitrite as N, dissolved		UH	08/21/2021	UH	06/03/2022	UH	mg/l
Nitrogen, Ammonia		0.43	09/10/2021	0.24	04/24/2023	0.36	mg/l
Nitrogen, Organic		0.55	09/10/2021	0.22	09/03/2021	0.38	mg/l
Nitrogen, Total Kjeldahl		0.98	09/10/2021	0.29	08/21/2021	0.55	mg/l
pH, lab		8.80	09/03/2021	8.30	04/24/2023	8.57	units
Phosphate, total		1.22	06/03/2022	0.45	08/21/2021	0.80	mg/l
Phosphorus, total		0.39	06/03/2022	0.15	08/21/2021	0.26	mg/l
SAR in Water		4	11/12/2021	3.20	08/21/2021	4	none
Sulfate		448	04/24/2023	407.00	09/10/2021	428	mg/l
Sulfide		0.08	04/24/2023	0.08	04/24/2023	0.08	mg/l
Total Dissolved Solids		1,250	04/24/2023	1,120	09/03/2021	1,163	mg/l
Conductivity, Field		1,720	04/24/2023	1,460	06/06/2022	1,607	µmhos
pH, Field		8.60	09/03/2021	7.30	04/24/2023	8.06	units
	5	1630	00/10/2021	1230	10//2//2022	1/ 62	(°(:)
Temperature (°C), Field		16.30 305 50	09/10/2021	12.30	04/24/2023	14.62 305.15	(°C) Ft
Water Level, Field		16.30 305.50	09/10/2021	12.30 304.90	04/24/2023	14.62 305.15	(°C) Ft.
Water Level, Field	11	305.50	11/27/2023	304.90	11/08/2022	305.15	Ft.
Water Level, Field Parameters	11 <b>No. of</b>						
Water Level, Field Parameters Metals	11 No. of Samples	305.50	11/27/2023 Date	304.90	11/08/2022 Date	305.15	Ft. Units
Water Level, Field Parameters Metals Aluminum, dissolved	11 No. of Samples 5	305.50 <b>High</b> U	11/27/2023 Date 08/21/2021	304.90 Low U	11/08/2022 Date 06/03/2022	305.15 Average	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	11 No. of Samples 5 5	305.50 <b>High</b> U 0.01	11/27/2023 Date 08/21/2021 09/10/2021	304.90 Low U 0.00	11/08/2022 Date 06/03/2022 04/24/2023	305.15 Average U 0.00	Ft. Units mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	11 <b>No. of</b> <u>Samples</u> 5 5 5	305.50 High U 0.01 0.04	Date           08/21/2021           09/10/2021           06/03/2022	304.90 Low U 0.00 0.01	11/08/2022           Date           06/03/2022           04/24/2023           09/10/2021	305.15 Average U 0.00 0.02	Ft. Units mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	11 <b>No. of</b> <u>Samples</u> 5 5 5 5 5	305.50 High U 0.01 0.04 U	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021	304.90 Low U 0.00 0.01 U	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022	305.15 Average U 0.00 0.02 U	Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	11 <b>No. of</b> <u>Samples</u> 5 5 5 5 5 6	305.50 High U 0.01 0.04 U 0.12	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           06/03/2022	304.90 Low U 0.00 0.01	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/3/2021	305.15 Average U 0.00 0.02	Ft. Units mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	11 No. of Samples 5 5 5 5 5 5 6 5 5	305.50 High U 0.01 0.04 U 0.12 U	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021	304.90 Low U 0.00 0.01 U 0.09 U	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/3/2021           06/03/2022	305.15 Average U 0.00 0.02 U 0.10 U	Ft. Units mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	11 No. of Samples 5 5 5 5 5 6 5 6 5 6	305.50 High U 0.01 0.04 U 0.12	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           04/24/2023	304.90 Low U 0.00 0.01 U 0.09	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/03/2021           06/03/2022           11/12/2021	305.15 Average U 0.00 0.02 U 0.10	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	11 <b>No. of</b> <b>Samples</b> 5 5 5 6 5 6 5 6 5 6 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5	305.50 High U 0.01 0.04 U 0.12 U 75.80	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2023           08/21/2021	304.90 Low U 0.00 0.01 U 0.09 U 43.80	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/03/2021           06/03/2022           11/12/2021           06/03/2022	305.15 Average U 0.00 0.02 U 0.10 U 59.62	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	11 <b>No. of</b> <b>Samples</b> 5 5 5 6 5 6 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5	305.50 High U 0.01 0.04 U 0.12 U 75.80 U U	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021	304.90 Low U 0.00 0.01 U 0.09 U 43.80 U U U	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/03/2021           06/03/2022           11/12/2021           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022	305.15 Average U 0.00 0.02 U 0.10 U 59.62 U U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	11 No. of Samples 5 5 5 5 6 5 6 5 6 5 5 5 5 5 5 5 5 5	305.50 High U 0.01 0.04 U 0.12 U 75.80 U	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           09/10/2021	304.90 Low U 0.00 0.01 U 0.09 U 43.80 U	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/03/2021           06/03/2022           11/12/2021           06/03/2022           06/03/2022           01/12/2021           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2023	305.15 Average U 0.00 0.02 U 0.10 U 59.62 U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	11 <b>No. of</b> <b>Samples</b> 5 5 5 6 5 6 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5	305.50 High U 0.01 0.04 U 0.12 U 75.80 U U 0.30 U	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021	304.90 Low U 0.00 0.01 U 0.09 U 43.80 U U 0.06 U	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/3/2021           06/03/2022           09/03/2021           06/03/2022           11/12/2021           06/03/2022           04/24/2023           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022	305.15 Average U 0.00 0.02 U 0.10 U 59.62 U U 0.19 U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	11 <b>No. of</b> <b>Samples</b> 5 5 5 6 5 6 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5	305.50 High U 0.01 0.04 U 0.12 U 75.80 U U 0.30 U 0.30 U 0.12	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           04/24/2023           08/21/2021           08/21/2021           08/21/2021           08/21/2021           09/10/2021           08/21/2021           09/03/2021	304.90 Low U 0.00 0.01 U 0.09 U 43.80 U U 0.06 U 0.08	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/3/2021           06/03/2022           09/03/2021           06/03/2022           09/03/2022           01/12/2021           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           08/21/2021	305.15 Average U 0.00 0.02 U 0.10 U 59.62 U U 0.19 U 0.10	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	11 <b>No. of</b> <b>Samples</b> 5 5 5 6 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5	305.50 <b>High</b> U 0.01 0.04 U 0.12 U 75.80 U U 0.30 U 0.12 107.00	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           04/24/2023           08/21/2021           04/24/2023           08/21/2021           08/21/2021           08/21/2021           08/21/2021           09/10/2021           08/21/2021           09/03/2021           04/24/2023	304.90 Low U 0.00 0.01 U 0.09 U 43.80 U U 0.06 U 0.08 87.60	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/03/2021           06/03/2022           11/12/2021           06/03/2022           04/24/2023           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           08/21/2021           11/12/2021	305.15 Average U 0.00 0.02 U 0.10 U 59.62 U U 0.19 U 0.10 97.83	Ft.           Units           mq/l           mq/l           mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	11 <b>No. of</b> <b>Samples</b> 5 5 5 6 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5	305.50 High U 0.01 0.04 U 0.12 U 75.80 U U 0.30 U 0.30 U 0.12 107.00 0.21	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           04/24/2023           08/21/2021           08/21/2021           08/21/2021           09/10/2021           09/10/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021	304.90 Low U 0.00 0.01 U 0.09 U 43.80 U U 0.06 U 0.08 87.60 0.02	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/03/2021           06/03/2022           09/03/2022           04/24/2023           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           08/21/2021           11/12/2021           06/03/2022	305.15 Average U 0.00 0.02 U 0.10 U 59.62 U U 0.19 U 0.10 97.83 0.08	Ft.           Units           mq/l           mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved	11 <b>No. of</b> <b>Samples</b> 5 5 5 6 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5	305.50 High U 0.01 0.04 U 0.12 U 75.80 U U 0.30 U 0.12 107.00 0.21 U	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           04/24/2023           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021	304.90 Low U 0.00 0.01 U 0.09 U 43.80 U 43.80 U 0.06 U 0.06 U 0.08 87.60 0.02 U	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/3/2021           06/03/2022           09/03/2021           06/03/2022           09/03/2022           04/24/2023           06/03/2022           06/03/2022           06/03/2022           06/03/2022           08/21/2021           11/12/2021           06/03/2022           08/21/2021           11/12/2021           06/03/2022           06/03/2022	305.15 Average U 0.00 0.02 U 0.10 U 59.62 U U 0.19 U 0.10 97.83 0.08 U	Ft.           Units           mq/l           mq/l           mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved	11 <b>No. of</b> <b>Samples</b> 5 5 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5	305.50 High U 0.01 0.04 U 0.12 U 75.80 U U 0.30 U 0.30 U 0.12 107.00 0.21	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           04/24/2023           08/21/2021           08/21/2021           08/21/2021           08/21/2021           09/10/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021	304.90 Low U 0.00 0.01 U 0.09 U 43.80 U U 0.06 U 0.08 87.60 0.02	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/3/2021           06/03/2022           09/03/2021           06/03/2022           09/03/2022           09/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           08/21/2021           11/12/2021           06/03/2022           08/21/2021           11/12/2021           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           09/10/2021	305.15 Average U 0.00 0.02 U 0.10 U 59.62 U U 0.19 U 0.10 97.83 0.08	Ft.           Units           mq/l           mq/l           mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	11 <b>No. of</b> <b>Samples</b> 5 5 5 6 6 5 5 5 5 5 5 5 5 5 5 5 5 5	305.50 High U 0.01 0.04 U 0.12 U 75.80 U 0.30 U 0.12 107.00 0.21 U 0.03 U 0.03 U	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           04/24/2023           08/21/2021           08/21/2021           08/21/2021           09/10/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021	304.90 Low U 0.00 0.01 U 0.09 U 43.80 U 43.80 U 0.06 U 0.06 U 0.08 87.60 0.02 U 0.02 U	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/3/2021           06/03/2022           09/03/2021           06/03/2022           09/03/2021           06/03/2022           04/24/2023           06/03/2022           04/24/2023           06/03/2022           06/03/2022           08/21/2021           11/12/2021           06/03/2022	305.15 Average U 0.00 0.02 U 0.10 U 59.62 U U 0.19 U 0.10 97.83 0.08 U 0.02 U	Ft.           Units           mq/l           mq/l           mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	11 <b>No. of</b> <b>Samples</b> 5 5 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5	305.50 High U 0.01 0.04 U 0.12 U 75.80 U 0.30 U 0.12 107.00 0.21 U 0.03 U 0.03 U 15.10	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           04/24/2023           08/21/2021           09/10/2021           08/21/2021           09/10/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           09/03/2021           08/21/2021           09/03/2021           09/03/2021           09/03/2021           09/03/2021           09/03/2021           09/10/2021	304.90 Low U 0.00 0.01 U 0.09 U 43.80 U 43.80 U 0.06 U 0.06 U 0.08 87.60 0.02 U 0.02 U 0.02 U 2.20	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/03/2021           06/03/2022           09/03/2021           06/03/2022           04/24/2023           06/03/2022           06/03/2022           06/03/2022           06/03/2022           08/21/2021           11/12/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           08/21/2021	305.15 Average U 0.00 0.02 U 0.10 U 0.10 97.83 0.08 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.03 0.03 0.04 0.05 0.0	Ft.           Units           mq/l           mq/l           mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	11 <b>No. of</b> <b>Samples</b> 5 5 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5	305.50 High U 0.01 0.04 U 0.12 U 75.80 U 0.12 U 0.30 U 0.12 107.00 0.21 U 0.03 U 0.21 U 0.03 U 15.10 1.00	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           04/24/2023           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           09/03/2021           08/21/2021           09/03/2021           08/21/2021           09/03/2021           09/10/2021           09/10/2021           09/10/2021           09/10/2021           09/10/2021	304.90 Low U 0.00 0.01 U 0.09 U 43.80 U 43.80 U 0.06 U 0.06 U 0.08 87.60 0.02 U 0.02 U 0.02 U 2.20 0.00	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/03/2021           06/03/2022           09/03/2021           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           08/21/2021           06/03/2022           06/03/2022           08/21/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           08/21/2021           08/21/2021	305.15 Average U 0.00 0.02 U 0.10 U 59.62 U 0.19 U 0.19 U 0.19 U 0.19 U 0.10 97.83 0.08 U 0.02 U 0.02 U 0.10 97.83 0.08 U 0.02 U 0.10 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.25 0.25 0.02 0.02 0.25 0.25 0.25 0.02 0.25 0.25 0.25 0.25 0.02 0.25 0.25 0.25 0.25 0.02 0.25 0.25 0.25 0.25 0.25 0.02 0.25 0	Ft.           Units           mq/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	11 <b>No. of</b> <b>Samples</b> 5 5 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5	305.50 High U 0.01 0.04 U 0.12 U 75.80 U 0.12 U 0.30 U 0.12 107.00 0.21 U 0.03 U 0.21 U 0.03 U 0.12 107.00 0.21 U 0.03 U 0.12 107.00 0.21 0.21 0.30 0.21 0.30 0.12 107.00 0.21 0.30 0.21 0.30 0.12 0.30 0.12 0.30 0.12 0.30 0.12 0.30 0.12 0.30 0.12 0.30 0.12 0.30 0.12 0.12 0.30 0.12 0.12 0.12 0.30 0.21 0.12 0.12 0.12 0.12 0.12 0.30 0.21 0.12 0.12 0.12 0.12 0.30 0.21 0.12 0.12 0.12 0.12 0.30 0.21 0.03 0.21 0.33 0.21 0.33 0.21 0.33 0.34 0.33 0.35 0	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           04/24/2023           08/21/2021           09/10/2021           08/21/2021           09/10/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           09/03/2021           08/21/2021           09/10/2021           09/10/2021           09/10/2021           09/10/2021           09/10/2021           09/10/2021           09/10/2021           09/10/2021           09/10/2021           09/10/2021           09/10/2021           09/10/2021           01/00/1900           04/24/2023	304.90 Low U 0.00 0.01 U 0.09 U 43.80 U 43.80 U 0.06 U 0.06 U 0.08 87.60 0.02 U 0.02 U 0.02 U 2.20 0.00 21.90	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/03/2021           06/03/2022           09/03/2021           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           08/21/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           08/21/2021           08/21/2021           09/03/2021	305.15 Average U 0.00 0.02 U 0.10 U 59.62 U 0.19 U 0.19 U 0.19 U 0.19 U 0.10 97.83 0.08 U 0.02 U 0.02 U 0.10 97.83 0.08 U 0.02 U 0.10 97.83 0.08 U 0.02 U 0.10 97.83 0.02 0.02 0.10 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.25	Ft. Units ma/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Sodium, dissolved	11 <b>No. of</b> <b>Samples</b> 5 5 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5	305.50 High U 0.01 0.04 U 0.12 U 75.80 U 0.12 U 0.30 U 0.12 107.00 0.21 U 0.03 U 15.10 1.00 34.00 210	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           04/24/2023           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           09/03/2021           08/21/2021           09/03/2021           08/21/2021           09/10/2021           09/10/2021           09/10/2021           09/10/2021	304.90 Low U 0.00 0.01 U 0.09 U 43.80 U 43.80 U 0.06 U 0.06 U 0.08 87.60 0.02 U 0.02 U 0.02 U 2.20 0.00 21.90 183	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/03/2021           06/03/2022           09/03/2021           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           08/21/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           08/21/2021           09/03/2021           08/21/2021	305.15 Average U 0.00 0.02 U 0.10 U 59.62 U 0.19 U 0.19 U 0.19 U 0.19 U 0.10 97.83 0.08 U 0.02 U 0.02 U 0.25 27.70 197	Ft.           Units           mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Sodium, dissolved	11 <b>No. of</b> <b>Samples</b> 5 5 5 6 5 5 5 5 5 5 5 5 5 5 5 6 5 5 5 6 5 5 5 6 6 5 5 5 6 6 5 5 5 6 6 6 5 5 5 6 6 6 5 5 5 5 6 6 5 5 5 5 5 5 6 6 6 5 5 5 5 5 5 5 5 5 5 5 5 5	305.50 High U 0.01 0.04 U 0.12 U 75.80 U 0.12 U 0.30 U 0.12 107.00 0.21 U 0.03 U 15.10 1.00 34.00 210 3.07	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           04/24/2023           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           09/03/2021           08/21/2021           09/03/2021           09/03/2021           09/10/2021           09/10/2021           09/10/2021           09/10/2021           09/10/2021           09/10/2021           06/03/2022	304.90 Low U 0.00 0.01 U 0.09 U 43.80 U 43.80 U 0.06 U 0.06 U 0.06 U 0.08 87.60 0.02 U 0.02 U 0.02 U 0.02 U 0.02 1.90 1.83 2.06	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/03/2021           06/03/2022           09/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           08/21/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021	305.15 Average U 0.00 0.02 U 0.10 U 59.62 U U 0.19 U 0.19 U 0.19 U 0.10 97.83 0.08 U 0.02 U 0.02 U 0.10 97.83 0.08 U 0.02 U 0.10 97.83 0.08 U 0.02 10 97.83 0.08 U 0.02 10 10 97.83 0.08 10 10 97.83 0.08 10 10 97.83 0.08 10 10 10 10 10 10 10 10 10 10	Ft.           Units           mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Sodium, dissolved	11 <b>No. of</b> <b>Samples</b> 5 5 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5	305.50 High U 0.01 0.04 U 0.12 U 75.80 U 0.12 U 0.30 U 0.12 107.00 0.21 U 0.03 U 15.10 1.00 34.00 210	Date           08/21/2021           09/10/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           06/03/2022           08/21/2021           04/24/2023           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           08/21/2021           09/03/2021           08/21/2021           09/03/2021           08/21/2021           09/10/2021           09/10/2021           09/10/2021           09/10/2021	304.90 Low U 0.00 0.01 U 0.09 U 43.80 U 43.80 U 0.06 U 0.06 U 0.08 87.60 0.02 U 0.02 U 0.02 U 2.20 0.00 21.90 183	Date           06/03/2022           04/24/2023           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/03/2021           06/03/2022           09/03/2021           06/03/2022           06/03/2022           06/03/2022           06/03/2022           06/03/2022           08/21/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           06/03/2022           09/10/2021           08/21/2021           09/03/2021           08/21/2021	305.15 Average U 0.00 0.02 U 0.10 U 59.62 U 0.19 U 0.19 U 0.19 U 0.19 U 0.10 97.83 0.08 U 0.02 U 0.02 U 0.25 27.70 197	Ft.           Units           mg/l

#### Appx. Table A-4: PA-1 Annual Perched Aquifer

DAUB & ASSOCIATES, INC. 20 



Parameters	No. of						
Wet Chemistry	Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	194	903.00	12/12/2008	41.00	01/30/1997	517.28	mg/l
Carbonate as CaCO3		566.00	01/30/1997	8.00	11/28/1990	91.18	mg/l
Total Alkalinity as CaCO3		926.00	12/12/2008	160.00	10/25/1990	606.84	mg/l
Bromide		3.00	06/26/1990	0.05	07/01/1997	0.44	mg/l
Cation-Anion Balance		63.40	04/14/2005	-28.80	08/02/2006	0.46	%
Sum of Anions		20.10	12/12/2008	11.66	11/28/1990	14.15	meq/l
Sum of Cations		67.50	04/14/2005	7.80	08/02/2006	14.40	meq/l
Chemical Oxygen Demand		220.00	09/22/2010	10.00	08/02/2006	80.23	mg/l
Chloride		118.00	10/22/1989	2.00	04/24/1991	19.12	mg/l
Conductivity, Lab		1,760.00	12/12/2008	1,000.00	05/20/1993	1,257.48	umhos
Fluoride		30.00	12/19/1991	1.90	06/26/1991	21.33	mg/l
Hardness as CaCO3		375.00	05/21/2018	0.40	10/25/1990	11.70	mg/l
Nitrate as N, dissolved		5.76	08/10/2008	0.02	07/18/1995	0.53	mg/l
Nitrate/Nitrite as N,		6.26	08/10/2008	0.02	07/18/1995	0.56	mg/l
Nitrite as N, dissolved		0.50	08/10/2008	0.01	03/30/1990	0.13	mg/l
Nitrogen, Ammonia		3.77	08/10/2008	0.54	06/15/1992	1.30	mg/l
Nitrogen, Organic		14.60	09/27/1990	0.10	06/15/1992	4.37	mg/l
Nitrogen, Total Kjeldahl		15.40	09/27/1990	0.60	06/15/1992	5.49	mg/l
pH, lab		9.70	12/20/1994	8.00	07/18/1995	8.92	units
Phosphate, total		155.00	06/25/2007	0.06	07/02/1998	10.79	mg/l
Phosphorus, total		0.46	06/26/1990	0.01	08/17/1993	0.08	mg/l
SAR in Water		345.00	04/14/2005	0.21	05/21/2018	56.18	none
Sulfate		445.00	06/26/1990	2.49	05/21/2018	40.76	mg/l
Sulfide		2.40	07/24/2002	0.02	07/15/2004	0.45	mg/l
Total Dissolved Solids		2,040.00	04/14/2005	494.00	10/25/1990	783.43	mg/l
Conductivity, Field		1,980.00	12/12/2008	620.00	03/16/1994	1,222.41	umhos
pH, Field		10.00	08/22/1991	6.80	03/10/2015	9.08	units
Temperature (°C), Field	121	17.40	07/01/2002	8.10	02/08/2021	12.30	(°C)
	121						
Temperature (°C), Field Water Level, Field	121 107	17.40 545.20	07/01/2002 06/25/2014	8.10 463.95	02/08/2021 04/01/2003	12.30 497.61	(°C) Ft.
Temperature (°C), Field Water Level, Field Parameters	121 107 <b>No. of</b>	17.40	07/01/2002	8.10	02/08/2021	12.30	(°C)
Temperature (°C), Field Water Level, Field Parameters Metals	121 107 <b>No. of</b> Samples	17.40 545.20 <b>High</b>	07/01/2002 06/25/2014 Date	8.10 463.95 <b>Low</b>	02/08/2021 04/01/2003 Date	12.30 497.61 Average	(°C) Ft. Units
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved	121 107 <b>No. of</b> Samples 26	17.40 545.20 <b>High</b> 0.70	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989	8.10 463.95 <b>Low</b> 0.03	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997	12.30 497.61 <b>Average</b> 0.12	(°C) Ft. <b>Units</b> mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	121 107 <b>No. of</b> <u>Samples</u> 26 26	17.40 545.20 <b>High</b> 0.70 0.04	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991	8.10 463.95 <b>Low</b> 0.03 0.00	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992	12.30 497.61 <b>Average</b> 0.12 0.01	(°C) Ft. Units mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	121 107 <b>No. of</b> <u>Samples</u> 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004	8.10 463.95 Low 0.03 0.00 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006	12.30 497.61 <b>Average</b> 0.12 0.01 0.04	(°C) Ft. Units mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	121 107 <b>No. of</b> <u>Samples</u> 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990	8.10 463.95 <b>Low</b> 0.03 0.00 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01	(°C) Ft. Units mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	121 107 <b>No. of</b> <u>Samples</u> 26 26 26 26 26 26 187	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005	8.10 463.95 <b>Low</b> 0.03 0.00 0.01 0.01 0.19	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37	(°C) Ft. Units mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	121 107 <b>No. of</b> <u>Samples</u> 26 26 26 26 26 26 187 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990	8.10 463.95 <b>Low</b> 0.03 0.00 0.01 0.01 0.19 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01	(°C) Ft. Units mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved	121 107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 26 187 26 186	17.40 545.20 <b>High</b> 0.70 0.04 0.23 0.01 1.48 0.01 141.00	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018	8.10 463.95 <b>Low</b> 0.03 0.00 0.01 0.01 0.19 0.01 0.30	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	121 107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 187 26 186 26	17.40 545.20 <b>High</b> 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.19 0.01 0.30 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04	(°C) Ft. Units mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	121 107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 187 26 186 26 26	17.40 545.20 <b>High</b> 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.19 0.01 0.30 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	121 107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 187 26 186 26 26 26 26 26	17.40 545.20 <b>High</b> 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.80	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989	8.10 463.95 <b>Low</b> 0.03 0.00 0.01 0.01 0.01 0.30 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	121 107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 26 187 26 186 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.01 0.80 0.05	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 10/22/1989	8.10 463.95 <b>Low</b> 0.03 0.00 0.01 0.01 0.01 0.30 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 07/18/1995 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	121 107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 26 187 26 186 26 26 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.07 0.01 0.80 0.05 0.13	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 10/22/1989 07/15/2004	8.10 463.95 <b>Low</b> 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 07/18/1995 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved	121 107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 26 187 26 26 26 26 26 26 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.07 0.01 0.80 0.05 0.13 9.10	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 10/22/1989 07/15/2004 12/12/2008	8.10 463.95 <b>Low</b> 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Liron, dissolved Lead, dissolved Magnesium, dissolved	121 107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 26 187 26 26 26 26 26 26 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.07 0.01 0.80 0.05 0.13 9.10 0.14	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 10/22/1989 07/15/2004 12/12/2008 07/30/2003	8.10 463.95 Low 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 04/27/2004 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lion, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved	121 107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 187 26 26 26 26 26 26 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.07 0.01 0.80 0.05 0.13 9.10 0.14 0.0006	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 10/22/1989 10/22/1989 07/15/2004 12/12/2008 07/30/2003 06/15/1992	8.10 463.95 <b>Low</b> 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 04/27/2004 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06 0.0004	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Lithium, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved	121 107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 187 26 26 26 26 26 26 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.07 0.01 0.80 0.05 0.13 9.10 0.14 0.0006 0.13	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 07/15/2004 12/12/2008 07/30/2003 06/15/1992 10/22/1989	8.10 463.95 <b>Low</b> 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06 0.0004 0.05	(°C) Ft. Units mq/l mq/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Marcury, dissolved Molybdenum, dissolved	121 107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 187 26 26 26 26 26 26 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.07 0.01 0.80 0.05 0.13 9.10 0.14 0.0006 0.13 0.52	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 07/15/2004 12/12/2008 07/30/2003 06/15/1992 10/22/1989 07/30/2003	8.10 463.95 <b>Low</b> 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06 0.0004 0.05 0.19	(°C) Ft. Units mq/l mq/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	121 107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 187 26 26 26 26 26 26 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.80 0.05 0.13 9.10 0.14 0.0006 0.13 0.52 12.50	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 07/15/2004 12/12/2008 07/30/2003 06/15/1992 10/22/1989 07/30/2003 05/21/2018	8.10 463.95 <b>Low</b> 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06 0.0004 0.05 0.19 1.34	(°C) Ft. Units ma/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	121 107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 187 26 26 26 26 26 26 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.80 0.05 0.13 9.10 0.14 0.0006 0.13 0.52 12.50 0.009	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 07/15/2004 12/12/2008 07/30/2003 06/15/1992 10/22/1989 07/30/2003 05/21/2018 09/27/1990	8.10 463.95 <b>Low</b> 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 07/12/1996 10/22/1989 06/10/2020 06/26/1990	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06 0.0004 0.05 0.19 1.34 0.004	(°C) Ft. Units ma/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Molybdenum, dissolved Selenium, dissolved Selenium, dissolved	121 107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 26 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.80 0.05 0.13 9.10 0.14 0.0006 0.13 0.52 12.50 0.009 27.70	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 10/22/1989 07/15/2004 12/12/2008 07/30/2003 06/15/1992 10/22/1989 07/30/2003 05/21/2018 09/27/1990 01/09/2001	8.10 463.95 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 04/01/2003 06/15/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 07/12/1996 10/22/1989 06/10/2020 06/26/1990 12/10/2019	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06 0.0004 0.05 0.19 1.34 0.004 12.52	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Selenium, dissolved Selenium, dissolved Silica, dissolved	121 107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 26 26 26 26 26 26 26 26	17.40 545.20 <b>High</b> 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.40 0.07 0.01 0.07 0.01 0.80 0.05 0.13 9.10 0.14 0.0006 0.13 0.52 12.50 0.009 27.70 1,530.00	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 10/22/1989 07/15/2004 12/12/2008 07/30/2003 06/15/1992 10/22/1989 07/30/2003 05/21/2018 09/27/1990 01/09/2001 04/14/2005	8.10 463.95 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 04/01/2003 06/15/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 07/12/1996 10/22/1989 06/10/2020 06/26/1990 12/10/2019 05/21/2018	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06 0.0004 0.05 0.19 1.34 0.004 12.52 321.05	(°C) Ft. Units ma/l ma/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Selenium, dissolved Selenium, dissolved Silica, dissolved Silica, dissolved Sodium, dissolved	121 107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 26 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.80 0.05 0.13 9.10 0.14 0.0006 0.13 0.52 12.50 0.009 27.70 1.530.00 1.34	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 07/15/2004 12/12/2008 07/30/2003 06/15/1992 10/22/1989 07/30/2003 05/21/2018 09/27/1990 01/09/2001 04/14/2005 12/12/2008	8.10 463.95 <b>Low</b> 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 10/22/1989 06/10/2020 06/26/1990 12/10/2019 05/21/2018 04/27/2004	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06 0.0004 0.05 0.19 1.34 0.004 12.52 321.05 0.20	(°C) Ft. Units mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Selenium, dissolved Selenium, dissolved Silica, dissolved	121 107 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 26 26 26 26 26 26 26 26	17.40 545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07 0.01 0.40 0.07 0.01 0.07 0.01 0.80 0.05 0.13 9.10 0.14 0.0006 0.13 0.52 12.50 0.009 27.70 1,530.00	07/01/2002 06/25/2014 <b>Date</b> 10/22/1989 06/26/1991 07/15/2004 06/26/1990 04/14/2005 06/26/1990 05/21/2018 07/30/2003 06/26/1990 10/22/1989 10/22/1989 07/15/2004 12/12/2008 07/30/2003 06/15/1992 10/22/1989 07/30/2003 05/21/2018 09/27/1990 01/09/2001 04/14/2005	8.10 463.95 0.03 0.00 0.01 0.01 0.01 0.01 0.01 0.01	02/08/2021 04/01/2003 04/01/2003 06/15/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 07/12/1996 10/22/1989 06/10/2020 06/26/1990 12/10/2019 05/21/2018	12.30 497.61 <b>Average</b> 0.12 0.01 0.04 0.01 0.37 0.01 2.48 0.04 0.01 0.13 0.03 0.05 1.28 0.06 0.0004 0.05 0.19 1.34 0.004 12.52 321.05	(°C) Ft. Units mg/l

#### Appx. Table A-5: 89-2 Quarterly A-Groove Aquifer

DAUB & ASSOCIATES, INC. 



Parameters Wet Chemistry Bicarbonate as CaCO3 Carbonate as CaCO3 Total Alkalinity as CaCO3							
Bicarbonate as CaCO3 Carbonate as CaCO3	No. of Samples	High	Date	Low	Date	Average	Units
Carbonate as CaCO3	135	3,430.00	05/16/2023	45.00	06/26/2002	910.39	mg/l
	135	693.00	06/26/2002	10.00	12/16/2003	98.30	mg/l
I Julia Amaning as Jauro	135	3,430.00	05/16/2023	142.00	09/28/2006	995.41	mg/l
Bromide	30	16.00	06/16/1997	0.29	08/01/1990	5.56	mg/l
Cation-Anion Balance	132	11.90	06/23/2010	-68.80	08/15/2017	-2.25	%
Sum of Anions	132	153.40	05/24/1994	34.16	08/01/1990	85.98	meq/l
Sum of Cations	132	143.00	02/27/1997	10.00	08/15/2017	82.91	meq/l
Chemical Oxygen Demand	22	840.00	08/16/1994	10.00	08/16/1996	192.50	mg/l
Chloride	135	4,690.00	05/24/1994	700.00	08/01/1990	2,377.49	mg/l
Conductivity, Lab	132	14,100.00	02/21/1994	309.00	05/27/2015	8,484.00	umhos
Fluoride	135	23.70	08/01/1990	5.50	06/14/2008	12.29	mg/l
Hardness as CaCO3	135	204.00	02/21/1994	25.00	08/15/2017	87.81	mg/l
Nitrate as N, dissolved	29	0.08	06/26/2002	0.02	06/28/2006	0.05	mg/l
Nitrate/Nitrite as N,	29	0.09	06/16/2011	0.02	06/28/2006	0.06	mg/l
Nitrite as N, dissolved	29	0.04	06/16/2011	0.01	01/29/1991	0.02	mg/l
Nitrogen, Ammonia	28	3.30	08/10/2008	0.83	08/13/1990	1.88	mg/l
Nitrogen, Organic	28	10.10	03/14/2008	0.40	07/21/1993	3.39	mg/l
Nitrogen, Total Kjeldahl	28	12.10	03/14/2008	1.30	06/14/2000	5.03	mg/l
pH, lab	132	9.10	12/14/2021	7.70	09/14/2004	8.57	units
Phosphate, total	26	155.00	06/28/2006	0.06	08/14/1995	17.00	mg/l
Phosphorus, total	28	0.11	08/13/1990	0.02	07/31/1991	0.06	mg/l
SAR in Water	132	4,950.00	06/24/2003	19.00	08/15/2017	127.89	none
Sulfate	134	2,310.00	06/15/2014	4.00	12/16/2004	70.78	mg/l
Sulfide	23	5.80	06/26/2002	0.02	08/10/2008	1.18	mg/l
Total Dissolved Solids	135	8,270.00	02/27/1997	2,110.00	08/15/2017	4,986.16	mg/l
Conductivity, Field	193	13,600.00	11/17/1993	2,900.00	08/01/1990	8,571.89	µmhos
pH, Field	188	9.53	07/29/2009	7.30	10/09/2019	8.52	units
Temperature (°C), Field	136	22.10	07/10/2018	7.40	12/15/2005	12.37	(°C)
Water Level, Field	112	554.90	08/07/2023	516.40	10/01/1990	539.22	Ft.
	<u></u>						
Parameters Metals	No. of Samples	High	Date	Low	Date	Average	Units
Aluminum, dissolved	29	0.80	06/16/2005	0.03	09/21/2010	0.28	mg/l
Arsenic, dissolved	29	0.05	01/29/1991	0.00	06/28/2006	0.20	mg/l
	29			0.00			IIIg/I
		1 56		0 00	08/01/1000	0.85	ma/l
Barium, dissolved		1.56	03/14/2008	0.09	08/01/1990	0.85	mg/l
Barium, dissolved Beryllium, dissolved	29	U	11/27/2012	U	08/10/2008	U	mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved	29 135	U 1.32	11/27/2012 08/07/2023	U 0.10	08/10/2008 11/20/1996	U 0.38	mg/l mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	29 135 29	U 1.32 0.03	11/27/2012 08/07/2023 07/21/1993	U 0.10 0.03	08/10/2008 11/20/1996 07/21/1993	U 0.38 0.03	mg/l mg/l mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	29 135 29 135	U 1.32 0.03 45.00	11/27/2012 08/07/2023 07/21/1993 12/16/2004	U 0.10	08/10/2008 11/20/1996 07/21/1993 11/20/1996	U 0.38 0.03 10.86	mg/l mg/l mg/l mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	29 135 29 135 29	U 1.32 0.03 45.00 U	11/27/2012 08/07/2023 07/21/1993 12/16/2004 11/27/2012	U 0.10 0.03 3.00 U	08/10/2008 11/20/1996 07/21/1993 11/20/1996 08/10/2008	U 0.38 0.03 10.86 U	mg/l mg/l mg/l mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	29 135 29 135 29 29 29	U 1.32 0.03 45.00 U 0.08	11/27/2012 08/07/2023 07/21/1993 12/16/2004 11/27/2012 06/24/2004	U 0.10 0.03 3.00 U 0.08	08/10/2008 11/20/1996 07/21/1993 11/20/1996 08/10/2008 06/24/2004	U 0.38 0.03 10.86 U 0.08	mg/l mg/l mg/l mg/l mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	29 135 29 135 29 29 29 29	U 1.32 0.03 45.00 U 0.08 1.67	11/27/2012 08/07/2023 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990	U 0.10 0.03 3.00 U	08/10/2008 11/20/1996 07/21/1993 11/20/1996 08/10/2008 06/24/2004 09/21/2010	U 0.38 0.03 10.86 U	mg/l mg/l mg/l mg/l mg/l mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	29 135 29 135 29 29 29 29 29 29	U 1.32 0.03 45.00 U 0.08 1.67 U	11/27/2012 08/07/2023 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012	U 0.10 0.03 3.00 U 0.08 0.07 U	08/10/2008 11/20/1996 07/21/1993 11/20/1996 08/10/2008 06/24/2004 09/21/2010 08/10/2008	U 0.38 0.03 10.86 U 0.08 0.39 U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	29 135 29 135 29 29 29 29 29 29 29 29 28	U 1.32 0.03 45.00 U 0.08 1.67 U 0.10	11/27/2012 08/07/2023 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997	U 0.10 0.03 3.00 U 0.08 0.07 U 0.02	08/10/2008 11/20/1996 07/21/1993 11/20/1996 08/10/2008 06/24/2004 09/21/2010 08/10/2008 08/13/1990	U 0.38 0.03 10.86 U 0.08 0.39 U 0.04	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	29 135 29 135 29 29 29 29 29 29 29 28 135	U 1.32 0.03 45.00 U 0.08 1.67 U 0.10 37.00	11/27/2012 08/07/2023 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994	U 0.10 0.03 3.00 U 0.08 0.07 U 0.02 3.90	08/10/2008 11/20/1996 07/21/1993 11/20/1996 08/10/2008 06/24/2004 09/21/2010 08/10/2008 08/13/1990 08/15/2017	U 0.38 0.03 10.86 U 0.08 0.39 U 0.04 14.70	mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	29 135 29 135 29 29 29 29 29 29 29 28 135 28	U 1.32 0.03 45.00 U 0.08 1.67 U 0.10 37.00 0.15	11/27/2012 08/07/2023 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994 10/25/1990	U 0.10 0.03 3.00 U 0.08 0.07 U 0.02 3.90 0.01	08/10/2008 11/20/1996 07/21/1993 11/20/1996 08/10/2008 06/24/2004 09/21/2010 08/10/2008 08/13/1990 08/15/2017 09/21/2010	U 0.38 0.03 10.86 U 0.08 0.39 U 0.04 14.70 0.05	mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved	29 135 29 135 29 29 29 29 29 29 29 28 135 28 28 29	U 1.32 0.03 45.00 U 0.08 1.67 U 0.10 37.00 0.15 0.0020	11/27/2012 08/07/2023 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994 10/25/1990 09/15/2007	U 0.10 0.03 3.00 U 0.08 0.07 U 0.02 3.90 0.01 0.0002	08/10/2008 11/20/1996 07/21/1993 11/20/1996 08/10/2008 06/24/2004 09/21/2010 08/10/2008 08/13/1990 08/15/2017 09/21/2010 08/14/1995	U 0.38 0.03 10.86 U 0.08 0.39 U 0.04 14.70 0.05 0.0009	mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved	29 135 29 135 29 29 29 29 29 29 28 135 28 28 29 29 29 29	U 1.32 0.03 45.00 U 0.08 1.67 U 0.10 37.00 0.15	11/27/2012 08/07/2023 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994 10/25/1990 09/15/2007 08/13/1990	U 0.10 0.03 3.00 U 0.08 0.07 U 0.02 3.90 0.01	08/10/2008 11/20/1996 07/21/1993 11/20/1996 08/10/2008 06/24/2004 09/21/2010 08/10/2008 08/13/1990 08/15/2017 09/21/2010 08/14/1995 10/25/1990	U 0.38 0.03 10.86 U 0.08 0.39 U 0.04 14.70 0.05	mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved	29 135 29 135 29 29 29 29 29 29 28 135 28 28 29 29 29 29 29 29	U 1.32 0.03 45.00 U 0.08 1.67 U 0.10 37.00 0.15 0.0020 0.37 U	11/27/2012 08/07/2023 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994 10/25/1990 09/15/2007 08/13/1990 11/27/2012	U 0.10 0.03 3.00 U 0.08 0.07 U 0.02 3.90 0.01 0.0002 0.13 U	08/10/2008 11/20/1996 07/21/1993 11/20/1996 08/10/2008 06/24/2004 09/21/2010 08/10/2008 08/13/1990 08/15/2017 09/21/2010 08/14/1995 10/25/1990 08/10/2008	U 0.38 0.03 10.86 U 0.08 0.39 U 0.04 14.70 0.05 0.0009 0.24 U	mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved	29 135 29 135 29 29 29 29 29 29 28 135 28 29 29 29 29 29 29 29 29 29 29 29	U 1.32 0.03 45.00 U 0.08 1.67 U 0.10 37.00 0.15 0.0020 0.37	11/27/2012 08/07/2023 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994 10/25/1990 09/15/2007 08/13/1990	U 0.10 0.03 3.00 U 0.08 0.07 U 0.02 3.90 0.01 0.0002 0.13 U 1.37	08/10/2008 11/20/1996 07/21/1993 11/20/1996 08/10/2008 06/24/2004 09/21/2010 08/10/2008 08/13/1990 08/15/2017 09/21/2010 08/14/1995 10/25/1990	U 0.38 0.03 10.86 U 0.08 0.39 U 0.04 14.70 0.05 0.0009 0.24	mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Maganese, dissolved Marcury, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	29 135 29 29 29 29 29 29 29 28 135 28 29 29 29 29 29 29 29 29 29 29 29 29 29	U 1.32 0.03 45.00 U 0.08 1.67 U 0.10 37.00 0.15 0.0020 0.37 U 10.00 0.0030	11/27/2012 08/07/2023 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994 10/25/1990 09/15/2007 08/13/1990 11/27/2012 07/31/1991 01/29/1991	U 0.10 0.03 3.00 U 0.08 0.07 U 0.02 3.90 0.01 0.0002 0.13 U 1.37 0.0010	08/10/2008 11/20/1996 07/21/1993 11/20/1996 08/10/2008 06/24/2004 09/21/2010 08/10/2008 08/13/1990 08/15/2017 09/21/2010 08/14/1995 10/25/1990 08/10/2008 12/14/2020 08/13/1990	U 0.38 0.03 10.86 U 0.08 0.39 U 0.04 14.70 0.05 0.0009 0.24 U 3.03 0.0020	mg/l           mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved	29 135 29 135 29 29 29 29 29 29 28 135 28 29 29 29 29 29 29 29 29 29 29 29	U 1.32 0.03 45.00 U 0.08 1.67 U 0.10 37.00 0.15 0.0020 0.37 U 10.00	11/27/2012 08/07/2023 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994 10/25/1990 09/15/2007 08/13/1990 11/27/2012 07/31/1991	U 0.10 0.03 3.00 U 0.08 0.07 U 0.02 3.90 0.01 0.0002 0.13 U 1.37	08/10/2008 11/20/1996 07/21/1993 11/20/1996 08/10/2008 06/24/2004 09/21/2010 08/10/2008 08/13/1990 08/14/1995 10/25/1990 08/10/2008 12/14/2020 08/13/1990 04/20/1992	U 0.38 0.03 10.86 U 0.08 0.39 U 0.04 14.70 0.05 0.0009 0.24 U 3.03	mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Maganese, dissolved Marcury, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	29 135 29 29 29 29 29 29 29 28 135 28 29 29 29 29 29 29 29 29 29 29 29 29 29	U 1.32 0.03 45.00 U 0.08 1.67 U 0.10 37.00 0.15 0.0020 0.37 U 10.00 0.030 63.00	11/27/2012 08/07/2023 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994 10/25/1990 09/15/2007 08/13/1990 11/27/2012 07/31/1991 01/29/1991 12/16/2004	U 0.10 0.03 3.00 U 0.08 0.07 U 0.02 3.90 0.01 0.0002 0.13 U 1.37 0.0010 2.10 220.00	08/10/2008 11/20/1996 07/21/1993 11/20/1996 08/10/2008 06/24/2004 09/21/2010 08/10/2008 08/13/1990 08/15/2017 09/21/2010 08/14/1995 10/25/1990 08/10/2008 12/14/2020 08/13/1990 04/20/1992 08/15/2017	U 0.38 0.03 10.86 U 0.08 0.39 U 0.04 14.70 0.05 0.0009 0.24 U 3.03 0.0020 12.22	mg/l           mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Maganese, dissolved Manganese, dissolved Marcury, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved Solica, dissolved	29 135 29 29 29 29 29 29 28 135 28 29 29 29 29 29 29 29 29 29 135 29 135 29 135	U 1.32 0.03 45.00 U 0.08 1.67 U 0.10 37.00 0.15 0.0020 0.37 U 10.00 0.030 63.00 3.180.00	11/27/2012 08/07/2023 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994 10/25/1990 09/15/2007 08/13/1990 11/27/2012 07/31/1991 01/29/1991 12/16/2004 02/27/1997	U 0.10 0.03 3.00 U 0.08 0.07 U 0.02 3.90 0.01 0.0002 0.13 U 1.37 0.0010 2.10	08/10/2008 11/20/1996 07/21/1993 11/20/1996 08/10/2008 06/24/2004 09/21/2010 08/10/2008 08/13/1990 08/14/1995 10/25/1990 08/10/2008 12/14/2020 08/13/1990 04/20/1992	U 0.38 0.03 10.86 U 0.08 0.39 U 0.04 14.70 0.05 0.0009 0.24 U 3.03 0.0020 12.22 1.893.16	mg/l           mg/l

#### Appx. Table A-6: 90-4 Quarterly A-Groove Aquifer

DAUB & ASSOCIATES, INC. 2013 Start Charles Market



Deremetere	No. of						
Parameters Wet Chemistry	Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3		1,410	06/03/2020	198	02/10/2015	740	mg/l
Carbonate as CaCO3		275	02/01/2022	53	11/04/2014	194	mg/l
Total Alkalinity as CaCO3		1,670	06/03/2020	377	02/10/2015	935	mg/l
Bromide		2.38	04/22/2019	0.17	01/29/2015	1.27	mg/l
Cation-Anion Balance		2.00	10/05/2022	-6.70	02/10/2015	-2.73	%
Sum of Anions		45.00	06/11/2019	15.00	12/15/2015	25.89	meg/l
Sum of Cations		42.00	06/11/2019	14.00	02/10/2015	24.42	meq/l
Chemical Oxygen Demand		37.00	12/15/2015	10.00	06/11/2019	19.11	mg/l
Chloride		435	06/11/2019	92	11/04/2014	185	mg/l
Conductivity, Lab		3,800	06/11/2019	1,430	11/04/2014	2,367	umhos
Fluoride		17.50	06/03/2020	5.47	06/19/2018	11.27	mg/l
Hardness as CaCO3		80.00	06/11/2019	13.00	06/19/2018	37.96	mg/l
Nitrate as N, dissolved		0.02	01/29/2015	0.02	01/29/2015	0.02	mg/l
Nitrate/Nitrite as N.		0.02	01/29/2015	0.02	11/04/2014	0.02	mg/l
Nitrite as N, dissolved		0.03	01/29/2015	0.00	11/04/2014	0.02	mg/l
Nitrogen, Ammonia		1.51	09/28/2017	0.00	04/05/2016	0.84	mg/l
Nitrogen, Organic		0.50	01/29/2015	0.10	04/05/2016	0.28	mg/l
Nitrogen, Total Kjeldah		1.90	09/28/2017	0.60	04/05/2016	1.05	mg/l
pH, lab		9.70	01/29/2015	8.70	11/04/2014	9.15	units
Phosphate, total		1.02	06/03/2020	0.06	06/19/2014	0.38	mg/l
		0.33	06/03/2020	0.08	06/19/2018	0.30	mg/l
Phosphorus, total SAR in Water		59	06/03/2020	20.00	11/04/2014	39	
							none
Sulfate		210	02/10/2015	10.50	08/14/2023	65	mg/l
Sulfide		6.20	06/03/2020	0.04	11/04/2014	2.22	mg/l
Total Dissolved Solids		2,400	06/11/2019	843	12/15/2015	1,388	mg/l
Conductivity, Field		4,062	04/22/2019	1,432	04/05/2016	2,457	<u>µmhos</u>
pH, Field		9.64	06/19/2018	8.44	04/22/2019	8.94	units
Temperature (°C), Field		22.22	06/19/2018	10.10	04/25/2023	17.32	(°C)
Water Level, Field	17	581.90	09/28/2017	561.80	04/25/2023	572.15	Ft.
				[		1	
Parameters	No. of	High	Date	Low	Date	Average	Units
Metals	Samples	-				-	
Aluminum, dissolved		U	06/03/2020	U	11/04/2014	U	mg/l
Arsenic, dissolved		0.00	11/04/2014	0.00	02/10/2015	0.00	mg/l
Barium, dissolved		0.41	04/22/2019	0.01	12/15/2015	0.12	mg/l
Beryllium, dissolved		U	06/03/2020	U	11/04/2014	U	mg/l
Boron, dissolved		1.07	06/03/2020	0.21	02/10/2015	0.55	mg/l
Cadmium, dissolved		U	06/03/2020	U	11/04/2014	U	mg/l
Calcium, dissolved		12.20	05/18/2021	1.30	04/05/2016	3.26	mg/l
Chromium, dissolved		U	06/03/2020	U	11/04/2014	U	mg/l
Copper, dissolved		U	06/03/2020	U	11/04/2014	U	mg/l
Iron, dissolved		0.86	09/28/2017	0.03	11/04/2014	0.25	mg/l
Lead, dissolved		U	06/03/2020	U	11/04/2014	U	mg/l
Lithium, dissolved		0.28	06/11/2019	0.12	11/04/2014	0.17	mg/l
Magnesium, dissolved	19	17.10	06/11/2019	2.40	06/19/2018	7.23	mg/l
		17.10					
Manganese, dissolved	11	0.08	11/04/2014	0.01	04/05/2016	0.03	mg/l
Manganese, dissolved Mercury, dissolved	11 11	0.08 U	11/04/2014 06/03/2020	0.01 U	04/05/2016 11/04/2014	0.03 U	mg/l
Manganese, dissolved Mercury, dissolved Molybdenum, dissolved	11 11 11	0.08 U 0.19	11/04/2014 06/03/2020 06/19/2018	0.01 U 0.06	04/05/2016 11/04/2014 11/04/2014	0.03 U 0.13	mg/l mg/l
Manganese, dissolved Mercury, dissolved	11 11 11	0.08 U	11/04/2014 06/03/2020 06/19/2018 06/03/2020	0.01 U	04/05/2016 11/04/2014 11/04/2014 11/04/2014	0.03 U	mg/l
Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	11 11 11 11 11 19	0.08 U 0.19	11/04/2014 06/03/2020 06/19/2018 06/03/2020 06/19/2018	0.01 U 0.06	04/05/2016 11/04/2014 11/04/2014 11/04/2014 02/13/2023	0.03 U 0.13 U 4.19	mg/l mg/l
Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved Selenium, dissolved	11 11 11 11 19 11	0.08 U 0.19 U	11/04/2014 06/03/2020 06/19/2018 06/03/2020	0.01 U 0.06 U	04/05/2016 11/04/2014 11/04/2014 11/04/2014	0.03 U 0.13 U	mg/l mg/l mg/l
Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	11 11 11 11 19 11	0.08 U 0.19 U 11.30	11/04/2014 06/03/2020 06/19/2018 06/03/2020 06/19/2018	0.01 U 0.06 U 0.98	04/05/2016 11/04/2014 11/04/2014 11/04/2014 02/13/2023	0.03 U 0.13 U 4.19	mg/l mg/l mg/l mg/l
Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved Selenium, dissolved	11 11 11 19 11 19 11	0.08 U 0.19 U 11.30 0.01	11/04/2014 06/03/2020 06/19/2018 06/03/2020 06/19/2018 05/18/2021	0.01 U 0.06 U 0.98 0.00	04/05/2016 11/04/2014 11/04/2014 11/04/2014 02/13/2023 09/28/2017	0.03 U 0.13 U 4.19 0.00	mg/l mg/l mg/l mg/l
Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved Selenium, dissolved Silica, dissolved	11 11 11 19 11 19 11 19 19	0.08 U 0.19 U 11.30 0.01 13.90	11/04/2014 06/03/2020 06/19/2018 06/03/2020 06/19/2018 05/18/2021 11/04/2014	0.01 U 0.06 U 0.98 0.00 0.20	04/05/2016 11/04/2014 11/04/2014 02/13/2023 09/28/2017 02/10/2015 02/10/2015	0.03 U 0.13 U 4.19 0.00 9.28	mg/l mg/l mg/l mg/l mg/l mg/l
Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved Selenium, dissolved Silica, dissolved Sodium, dissolved	11 11 11 19 11 19 11 19 19 19	0.08 U 0.19 U 11.30 0.01 13.90 924	11/04/2014 06/03/2020 06/19/2018 06/03/2020 06/19/2018 05/18/2021 11/04/2014 06/11/2019	0.01 U 0.06 U 0.98 0.00 0.20 303	04/05/2016 11/04/2014 11/04/2014 02/13/2023 09/28/2017 02/10/2015	0.03 U 0.13 U 4.19 0.00 9.28 531	mg/l mg/l mg/l mg/l mg/l

#### Appx. Table A-7: AG-1 Quarterly A-Groove Aquifer

DAUB & ASSOCIATES, INC. 20 Harris 



Paramotore	No. of						
Parameters Wet Chemistry	Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3		441	08/17/2021	308	11/12/2021	379	mg/l
Carbonate as CaCO3		283	11/12/2021	80	08/17/2021	168	mg/l
Total Alkalinity as CaCO3		592	11/12/2021	513	09/03/2021	547	mg/l
Bromide		Ŭ	08/17/2021	U	09/10/2021	U	mg/l
Cation-Anion Balance		3.20	09/03/2021	-3.40	03/14/2022	-0.53	%
Sum of Anions		17.00	09/10/2021	13.00	08/17/2021	15.00	meq/l
Sum of Cations		17.00	09/10/2021	13.00	08/17/2021	14.83	meq/l
Chemical Oxygen Demand		35.00	09/03/2021	25.00	09/10/2021	29.33	mg/l
Chloride		32	09/10/2021	13	02/13/2023	23	mg/l
Conductivity, Lab	6	1,620	11/12/2021	1,200	02/13/2023	1,392	µmhos
Fluoride	6	10.90	02/13/2023	9.31	09/10/2021	10.06	mg/l
Hardness as CaCO3	6	60.00	08/17/2021	40.00	09/03/2021	49.83	mg/l
Nitrate as N, dissolved	5	UH	08/17/2021	UH	09/10/2021	UH	mg/l
Nitrate/Nitrite as N,	5	UH	08/17/2021	UH	09/10/2021	UH	mg/l
Nitrite as N, dissolved		UH	08/17/2021	UH	09/10/2021	UH	mg/l
Nitrogen, Ammonia		0.91	09/03/2021	0.39	08/17/2021	0.66	mg/l
Nitrogen, Organic		0.59	09/10/2021	0.31	09/03/2021	0.46	mg/l
Nitrogen, Total Kjeldahl		1.36	09/10/2021	0.60	02/13/2023	0.97	mg/l
pH, lab		9.80	09/10/2021	8.70	02/13/2023	9.28	units
Phosphate, total		1.45	09/03/2021	0.18	02/13/2023	0.70	mg/l
Phosphorus, total		0.47	09/03/2021	0.06	02/13/2023	0.23	mg/l
SAR in Water		23	09/03/2021	15.00	08/17/2021	19	none
Sulfate		190	11/12/2021	73.90	02/13/2023	137	mg/l
Sulfide		2.73	09/10/2021	0.10	08/17/2021	0.99	mg/l
Total Dissolved Solids		971	09/10/2021	727	02/13/2023	847	mg/l
Conductivity, Field		1,561	09/10/2021	1,020	08/11/2021	1,243	µmhos
pH, Field		9.71	09/03/2021	7.44	08/11/2021	8.59	units
Temperature (°C),	9	28.10	08/11/2021	10.10	02/13/2023	17.98	(°C)
	9						
Temperature (°C), Water Level, Field	9 11	28.10	08/11/2021	10.10	02/13/2023	17.98	(°C)
Temperature (°C), Water Level, Field Parameters	9 11 <b>No. of</b>	28.10	08/11/2021	10.10	02/13/2023	17.98	(°C)
Temperature (°C), Water Level, Field Parameters Metals	9 11 No. of Samples	28.10 374.60 <b>High</b>	08/11/2021 11/13/2023 Date	10.10 368.70 Low	02/13/2023 09/03/2021 Date	17.98 370.80 Average	(°C) Ft. Units
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved	9 11 <b>No. of</b> Samples 5	28.10 374.60 <b>High</b> 0.09	08/11/2021 11/13/2023 <b>Date</b> 08/17/2021	10.10 368.70 <b>Low</b> 0.09	02/13/2023 09/03/2021 <b>Date</b> 08/17/2021	17.98 370.80 Average 0.09	(°C) Ft. <b>Units</b> mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	9 11 <b>No. of</b> Samples 5 5	28.10 374.60 <b>High</b> 0.09 0.45	08/11/2021 11/13/2023 <b>Date</b> 08/17/2021 09/10/2021	10.10 368.70 Low 0.09 0.06	02/13/2023 09/03/2021 <b>Date</b> 08/17/2021 08/17/2021	17.98 370.80 <b>Average</b> 0.09 0.21	(°C) Ft. Units mg/l mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	9 11 <b>No. of</b> Samples 5 5 5 5	28.10 374.60 High 0.09 0.45 0.07	08/11/2021 11/13/2023 <b>Date</b> 08/17/2021 09/10/2021 09/10/2021	10.10 368.70 Low 0.09 0.06 0.02	02/13/2023 09/03/2021 <b>Date</b> 08/17/2021 08/17/2021 08/17/2021	17.98 370.80 <b>Average</b> 0.09 0.21 0.05	(°C) Ft. Units mg/l mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	9 11 <b>No. of</b> <u>Samples</u> 5 5 5 5 5 5	28.10 374.60 High 0.09 0.45 0.07 U	08/11/2021 11/13/2023 <b>Date</b> 08/17/2021 09/10/2021 09/10/2021 08/17/2021	10.10 368.70 Low 0.09 0.06 0.02 U	02/13/2023 09/03/2021 <b>Date</b> 08/17/2021 08/17/2021 08/17/2021 09/10/2021	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U	(°C) Ft. Units mg/l mg/l mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	9 11 <b>No. of</b> <b>Samples</b> 5 5 5 5 5 5 6	28.10 374.60 High 0.09 0.45 0.07 U 0.26	08/11/2021 11/13/2023 <b>Date</b> 08/17/2021 09/10/2021 09/10/2021 08/17/2021 09/10/2021	10.10 368.70 <b>Low</b> 0.09 0.06 0.02 U 0.24	02/13/2023 09/03/2021 <b>Date</b> 08/17/2021 08/17/2021 08/17/2021 09/10/2021 02/13/2023	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U 0.25	(°C) Ft. Units mg/l mg/l mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	9 11 <b>No. of</b> <u>Samples</u> 5 5 5 5 5 5 6 5 5 5	28.10 374.60 High 0.09 0.45 0.07 U 0.26 U	08/11/2021 11/13/2023 <b>Date</b> 08/17/2021 09/10/2021 09/10/2021 08/17/2021 09/10/2021 08/17/2021	10.10 368.70 0.09 0.06 0.02 U 0.24 U	02/13/2023 09/03/2021 <b>Date</b> 08/17/2021 08/17/2021 08/17/2021 09/10/2021 02/13/2023 09/10/2021	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U 0.25 U	(°C) Ft. Units mg/l mg/l mg/l mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	9 11 <b>No. of</b> <b>Samples</b> 5 5 5 5 5 5 6 5 6 5 6	28.10 374.60 High 0.09 0.45 0.07 U 0.26 U 11.30	08/11/2021 11/13/2023 <b>Date</b> 08/17/2021 09/10/2021 09/10/2021 08/17/2021 08/17/2021 08/17/2021	10.10 368.70 <b>Low</b> 0.09 0.06 0.02 U 0.24 U 4.84	02/13/2023 09/03/2021 <b>Date</b> 08/17/2021 08/17/2021 08/17/2021 09/10/2021 02/13/2023 09/10/2021 09/03/2021	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U 0.25 U 7.24	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	9 11 <b>No. of</b> <b>Samples</b> 5 5 5 5 5 6 5 6 5 6 5 5 5 5 5 5 5 5 5	28.10 374.60 High 0.09 0.45 0.07 U 0.26 U 11.30 U	08/11/2021 11/13/2023 <b>Date</b> 08/17/2021 09/10/2021 09/10/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021	10.10 368.70 <b>Low</b> 0.09 0.06 0.02 U 0.24 U 4.84 U	02/13/2023 09/03/2021 <b>Date</b> 08/17/2021 08/17/2021 08/17/2021 09/10/2021 02/13/2023 09/10/2021 09/03/2021	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U 0.25 U 7.24 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	9 11 <b>No. of</b> <b>Samples</b> 5 5 5 5 5 6 5 6 5 6 5 5 5 5 5 5 5 5 5	28.10 374.60 High 0.09 0.45 0.07 U 0.26 U 11.30 U U	08/11/2021 11/13/2023 <b>Date</b> 08/17/2021 09/10/2021 09/10/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021	10.10 368.70 <b>Low</b> 0.09 0.06 0.02 U 0.24 U 4.84 U U	02/13/2023 09/03/2021 <b>Date</b> 08/17/2021 08/17/2021 08/17/2021 09/10/2021 02/13/2023 09/10/2021 09/03/2021 09/10/2021	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U 0.25 U 7.24 U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	9 11 <b>No. of</b> <b>Samples</b> 5 5 5 5 5 6 5 6 5 6 5 5 5 5 5 5 5 5 5	28.10 374.60 High 0.09 0.45 0.07 U 0.26 U 11.30 U U 0.30	08/11/2021 11/13/2023 <b>Date</b> 08/17/2021 09/10/2021 09/10/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021	10.10 368.70 <b>Low</b> 0.09 0.06 0.02 U 0.24 U 4.84 U U 0.17	02/13/2023 09/03/2021 <b>Date</b> 08/17/2021 08/17/2021 08/17/2021 09/10/2021 09/10/2021 09/03/2021 09/10/2021 09/10/2021 09/03/2021	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U 0.25 U 7.24 U U U 0.25	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	9 11 <b>No. of</b> <b>Samples</b> 5 5 5 5 6 5 6 5 6 5 5 5 5 5 5 5 5 5 5	28.10 374.60 High 0.09 0.45 0.07 U 0.26 U 11.30 U U 0.30 U	08/11/2021 11/13/2023 <b>Date</b> 08/17/2021 09/10/2021 09/10/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021	10.10 368.70 0.09 0.06 0.02 U 0.24 U 4.84 U U 0.17 U	02/13/2023 09/03/2021 <b>Date</b> 08/17/2021 08/17/2021 08/17/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/03/2021 09/03/2021	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U 0.25 U 7.24 U U 0.25 U U 0.25 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	9 11 <b>No. of</b> <b>Samples</b> 5 5 5 5 6 5 6 5 5 6 5 5 5 5 5 5 5 5 5	28.10 374.60 High 0.09 0.45 0.07 U 0.26 U 11.30 U 11.30 U 0.30 U 0.11	08/11/2021 11/13/2023 <b>Date</b> 08/17/2021 09/10/2021 09/10/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021	10.10 368.70 0.09 0.06 0.02 U 0.24 U 4.84 U U 0.17 U 0.07	02/13/2023 09/03/2021 <b>Date</b> 08/17/2021 08/17/2021 08/17/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/03/2021 09/03/2021 09/10/2021 09/10/2021	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U 0.25 U 7.24 U U 0.25 U 0.25 U 0.25 U 0.25	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	9 11 <b>No. of</b> <b>Samples</b> 5 5 5 5 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5	28.10 374.60 High 0.09 0.45 0.07 U 0.26 U 11.30 U 0.26 U 0.26 U 0.26 U 0.11 8.79	08/11/2021 11/13/2023 <b>Date</b> 08/17/2021 09/10/2021 09/10/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 11/12/2021	10.10 368.70 Low 0.09 0.06 0.02 U 0.24 U 4.84 U U 0.17 U 0.07 6.64	02/13/2023 09/03/2021 <b>Date</b> 08/17/2021 08/17/2021 08/17/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 02/13/2023 02/13/2023	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U 0.25 U 7.24 U U 0.25 U 0.25 U 0.25 C 0.25 U 0.25 U 0.25 U 0.25 C 0.25 C 0.25 C 0.25 C 0.25 C 0.21 C 0.25 C 0.21 C 0.25 C 0.21 C 0.25 C 0 25 C 0 C 0 0 C 0 0 0 0 0 0 0 0 0 0 0 0 0	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	9 11 <b>No. of</b> <b>Samples</b> 5 5 5 5 5 6 6 5 5 5 5 5 5 5 5 5 5 5 5	28.10 374.60 High 0.09 0.45 0.07 U 0.26 U 11.30 U 0.26 U 0.30 U 0.30 U 0.11 8.79 0.05	08/11/2021 11/13/2023 <b>Date</b> 08/17/2021 09/10/2021 09/10/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021	10.10 368.70 Low 0.09 0.06 0.02 U 0.24 U 4.84 U U 0.17 U 0.07 6.64 0.05	02/13/2023 09/03/2021 <b>Date</b> 08/17/2021 08/17/2021 08/17/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 02/13/2023 02/13/2023	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U 0.25 U 7.24 U U 0.25 U 0.09 7.68 0.05	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved	9 11 <b>No. of</b> <b>Samples</b> 5 5 5 5 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5	28.10 374.60 High 0.09 0.45 0.07 U 0.26 U 11.30 U 0.26 U 0.26 U 0.30 U 0.30 U 0.11 8.79 0.05 U	08/11/2021 11/13/2023 <b>Date</b> 08/17/2021 09/10/2021 09/10/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021	10.10 368.70 Low 0.09 0.06 0.02 U 0.24 U 4.84 U 0.17 U 0.17 U 0.07 6.64 0.05 U	02/13/2023 09/03/2021 08/17/2021 08/17/2021 08/17/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 02/13/2023 02/13/2023 08/17/2021 09/10/2021	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U 0.25 U 7.24 U U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.09 7.68 0.05 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Marcury, dissolved	9 11 <b>No. of</b> <b>Samples</b> 5 5 5 5 6 6 5 5 5 5 5 5 5 5 5 5 5 5 5	28.10 374.60 High 0.09 0.45 0.07 U 0.26 U 11.30 U 0.26 U 0.30 U 0.30 U 0.11 8.79 0.05	08/11/2021 11/13/2023 <b>Date</b> 08/17/2021 09/10/2021 09/10/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021	10.10 368.70 Low 0.09 0.06 0.02 U 0.24 U 4.84 U U 0.17 U 0.07 6.64 0.05	02/13/2023 09/03/2021 08/17/2021 08/17/2021 08/17/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 02/13/2023 08/17/2021 09/10/2021 09/10/2021	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U 0.25 U 7.24 U U 0.25 U 0.09 7.68 0.05	(°C) Ft. Units mq/l mq/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved	9 11 <b>No. of</b> <b>Samples</b> 5 5 5 5 5 6 6 5 5 5 5 5 5 5 5 5 5 5 5	28.10 374.60 High 0.09 0.45 0.07 U 0.26 U 11.30 U 0.26 U 0.30 U 0.30 U 0.11 8.79 0.05 U 0.69 U	08/11/2021 11/13/2023 <b>Date</b> 08/17/2021 09/10/2021 09/10/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021	10.10 368.70 Low 0.09 0.06 0.02 U 0.24 U 0.24 U 4.84 U 0.17 U 0.17 U 0.07 6.64 0.05 U 0.04 U	02/13/2023 09/03/2021 08/17/2021 08/17/2021 08/17/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 02/13/2023 08/17/2021 09/10/2021 02/13/2023 09/10/2021	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U 0.25 U 7.24 U 0.25 U 0.09 7.68 0.05 U 0.35 U	(°C) Ft. Units mq/l mq/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	9 11 <b>No. of</b> <b>Samples</b> 5 5 5 5 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5	28.10 374.60 High 0.09 0.45 0.07 U 0.26 U 11.30 U 0.26 U 0.26 U 0.30 U 0.30 U 0.11 8.79 0.05 U 0.69 U 30.30	08/11/2021 11/13/2023 08/17/2021 09/10/2021 09/10/2021 09/10/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021	10.10 368.70 Low 0.09 0.06 0.02 U 0.24 U 4.84 U 4.84 U 0.17 U 0.07 6.64 0.05 U 0.04 U 1.21	02/13/2023 09/03/2021 08/17/2021 08/17/2021 08/17/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 02/13/2023 08/17/2021 02/13/2023 09/10/2021 02/13/2023	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.09 7.68 0.05 U 0.35 U 14.96	(°C) Ft. Units ma/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	9 11 <b>No. of</b> <b>Samples</b> 5 5 5 5 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5	28.10 374.60 High 0.09 0.45 0.07 U 0.26 U 11.30 U 0.26 U 0.26 U 0.30 U 0.30 U 0.11 8.79 0.05 U 0.69 U 30.30 0.0028	08/11/2021 11/13/2023 08/17/2021 09/10/2021 09/10/2021 09/10/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021	10.10 368.70 Low 0.09 0.06 0.02 U 0.24 U 4.84 U 0.17 U 0.07 6.64 0.05 U 0.04 U 1.21 0.0003	02/13/2023 09/03/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 02/13/2023 08/17/2021 02/13/2023 09/10/2021 02/13/2023 09/10/2021	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.09 7.68 0.05 U 0.35 U 14.96 0.0012	(°C) Ft. Units ma/l mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	9 11 <b>No. of</b> <b>Samples</b> 5 5 5 5 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5	28.10 374.60 High 0.09 0.45 0.07 U 0.26 U 11.30 U 0.26 U 0.26 U 0.30 U 0.30 U 0.11 8.79 0.05 U 0.69 U 30.30 0.0028 13.40	08/11/2021 11/13/2023 08/17/2021 09/10/2021 09/10/2021 09/10/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021	10.10 368.70 Low 0.09 0.06 0.02 U 0.24 U 4.84 U 0.17 U 0.07 6.64 0.05 U 0.04 U 1.21 0.0003 6.40	02/13/2023 09/03/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 02/13/2023 08/17/2021 02/13/2023 09/10/2021 02/13/2023 09/10/2021 02/13/2023	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U 0.25 U 7.24 U 0.25 U 0.09 7.68 0.05 U 0.09 7.68 0.05 U 0.35 U 14.96 0.0012 8.92	(°C) Ft. Units mq/l mq/l mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	9 11 <b>No. of</b> <b>Samples</b> 5 5 5 5 6 6 5 5 5 5 5 5 5 5 5 5 5 5 5	28.10 374.60 High 0.09 0.45 0.07 U 0.26 U 11.30 U 0.26 U 11.30 U 0.30 U 0.30 U 0.11 8.79 0.05 U 0.69 U 0.69 U 30.30 0.0028 13.40 342	08/11/2021 11/13/2023 08/17/2021 09/10/2021 09/10/2021 09/10/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021	10.10 368.70 Low 0.09 0.06 0.02 U 0.24 U 4.84 U U 0.17 U 0.07 6.64 0.05 U 0.04 U 1.21 0.0003 6.40 269	02/13/2023 09/03/2021 08/17/2021 08/17/2021 08/17/2021 09/10/2021 02/13/2023 09/10/2021 09/03/2021 09/10/2021 09/10/2021 02/13/2023 08/17/2021 02/13/2023 09/10/2021 02/13/2023 09/10/2021 02/13/2023	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U 0.25 U 7.24 U 0.25 U 0.09 7.68 0.05 U 0.09 7.68 0.05 U 0.35 U 14.96 0.0012 8.92 303	(°C) Ft. Units mg/l
Temperature (°C), Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	9 11 <b>No. of</b> <b>Samples</b> 5 5 5 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5	28.10 374.60 High 0.09 0.45 0.07 U 0.26 U 11.30 U 0.26 U 0.26 U 0.30 U 0.30 U 0.11 8.79 0.05 U 0.69 U 30.30 0.0028 13.40	08/11/2021 11/13/2023 08/17/2021 09/10/2021 09/10/2021 09/10/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021 08/17/2021	10.10 368.70 Low 0.09 0.06 0.02 U 0.24 U 4.84 U 0.17 U 0.07 6.64 0.05 U 0.04 U 1.21 0.0003 6.40	02/13/2023 09/03/2021 08/17/2021 08/17/2021 08/17/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 02/13/2023 08/17/2021 02/13/2023 09/10/2021 02/13/2023 09/10/2021 02/13/2023	17.98 370.80 <b>Average</b> 0.09 0.21 0.05 U 0.25 U 7.24 U 0.25 U 0.09 7.68 0.05 U 0.09 7.68 0.05 U 0.35 U 14.96 0.0012 8.92	(°C) Ft. Units mq/l mq/l mg/l

#### Appx. Table A-8: AG-2 Annual A-Groove Aquifer

DAUB & ASSOCIATES, INC. 20 The Art And A STORY AND



Demonsterre		1					
Parameters Wet Chemistry	No. of	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	Samples 63	1,250.00	03/22/1993	34.00	09/08/1993	292.94	mg/l
Carbonate as CaCO3		870.00	03/22/1993	24.00	06/30/2009	250.69	mg/l
Total Alkalinity as CaCO3		2,120.00	03/22/1993	176.00	06/14/2008	498.19	mg/l
Bromide		2.70	11/29/2011	0.07	05/26/2000	0.62	mg/l
Cation-Anion Balance		13.30	11/06/2014	-9.10	03/22/2016	1.47	%
Sum of Anions		19.49	09/16/1991	9.50	05/29/2003	13.34	meq/l
Sum of Cations		18.34	09/16/1991	9.50	05/26/2004	13.78	meq/l
Chemical Oxygen Demand		1,300.00	05/29/2002	12.00	03/15/2022	417.35	mg/l
Chloride		252.00	06/14/2008	21.00	12/20/1993	112.64	mg/l
Conductivity, Lab		3,320.00	09/15/1992	1,010.00	05/29/2003	1,508.87	umhos
Fluoride		27.00	12/19/1995	2.20	09/15/1992	9.63	mg/l
Hardness as CaCO3		962.00	03/22/1993	0.00	01/19/1994	33.20	mg/l
Nitrate as N, dissolved		3.89	06/14/2008	0.02	09/15/1992	0.43	mg/l
trate/Nitrite as N, dissolved		3.90	06/14/2008	0.02	09/15/1992	0.33	mg/l
Nitrite as N, dissolved		0.05	11/06/2014	0.01	06/18/1996	0.02	mg/l
Nitrogen, Ammonia		21.30	09/08/1993	0.34	08/23/2017	3.44	mg/l
Nitrogen, Organic		104.00	05/29/2002	0.20	08/23/2017	17.23	mg/l
Nitrogen, Total Kjeldahl		106.00	05/29/2002	0.40	04/22/2019	18.14	mg/l
pH, lab		11.90	06/16/1992	8.50	02/12/2023	10.10	units
Phosphate, total		155.00	07/29/2009	0.03	05/26/1999	6.27	mg/l
Phosphorus, total		2.95	09/27/1990	0.03	05/26/1999	0.23	mg/l
SAR in Water		190.00	11/14/1997	3.83	03/25/1992	62.31	none
Sulfate		360.00	09/16/1991	0.80	02/26/1997	31.18	mg/l
Sulfide		29.00	03/22/2016	0.00	09/15/1992	4.28	mg/l
Total Dissolved Solids		2,752.00	03/22/1993	578.00	09/27/1990	845.25	mg/l
Conductivity, Field		3,910.00	07/29/2009	694.00	06/01/2005	1,585.90	µmhos
pH, Field		12.90	09/13/1995	7.78	09/16/2019	10.59	units
	13						
Temperature (°C), Field	40	22.50	06/01/2005	7.00	07/01/1991	12.34	(°C)
	40						
Temperature (°C), Field Water Level, Field	40 70	22.50 494.90	06/01/2005 09/08/2022	7.00 409.63	07/01/1991 11/01/1990	12.34 438.91	(°C) Ft.
Temperature (°C), Field Water Level, Field Parameters	40 70 <b>No. of</b>	22.50	06/01/2005	7.00	07/01/1991	12.34	(°C)
Temperature (°C), Field Water Level, Field Parameters Metals	40 70 No. of Samples	22.50 494.90 High	06/01/2005 09/08/2022 Date	7.00 409.63 Low	07/01/1991 11/01/1990 Date	12.34 438.91 Average	(°C) Ft. <b>Units</b>
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved	40 70 <b>No. of</b> <u>Samples</u> 33	22.50 494.90 High 1.35	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014	7.00 409.63 <b>Low</b> 0.03	07/01/1991 11/01/1990 <b>Date</b> 08/23/2017	12.34 438.91 Average 0.22	(°C) Ft. <b>Units</b> mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	40 70 <b>No. of</b> <u>Samples</u> 33 33	22.50 494.90 High 1.35 0.01	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017	7.00 409.63 Low 0.03 0.00	07/01/1991 11/01/1990 <b>Date</b> 08/23/2017 03/15/2022	12.34 438.91 Average 0.22 0.00	(°C) Ft. Units mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	40 70 <b>No. of</b> <u>Samples</u> 33 33 33	22.50 494.90 High 1.35 0.01 0.20	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014	7.00 409.63 Low 0.03 0.00 0.00	07/01/1991 11/01/1990 <b>Date</b> 08/23/2017	12.34 438.91 Average 0.22 0.00 0.05	(°C) Ft. Units mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	40 70 <b>No. of</b> <u>Samples</u> 33 33 33 33 33	22.50 494.90 High 1.35 0.01 0.20 0.00	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009 U	7.00 409.63 Low 0.03 0.00 0.00 44,635.00	07/01/1991 11/01/1990 <b>Date</b> 08/23/2017 03/15/2022 09/08/1993 U	12.34 438.91 Average 0.22 0.00 0.05 38,133.00	(°C) Ft. Units mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	40 70 <b>No. of</b> <u>Samples</u> 33 33 33 33 33 63	22.50 494.90 High 1.35 0.01 0.20 0.00 0.47	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009	7.00 409.63 <b>Low</b> 0.03 0.00 0.00 44,635.00 0.04	07/01/1991 11/01/1990 <b>Date</b> 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 0.22	(°C) Ft. Units mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	40 70 <b>No. of</b> <u>Samples</u> 33 33 33 33 33 63 33	22.50 494.90 High 1.35 0.01 0.20 0.00 0.47 0.00	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009 U 12/20/1993 U	7.00 409.63 <b>Low</b> 0.03 0.00 0.00 44,635.00 0.04 44,635.00	07/01/1991 11/01/1990 <b>Date</b> 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020 U	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 0.22 38,133.00	(°C) Ft. Units mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	40 70 <b>No. of</b> <b>Samples</b> 33 33 33 33 63 63 63 63	22.50 494.90 High 1.35 0.01 0.20 0.00 0.47 0.00 27.50	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009 U 12/20/1993 U 06/30/2009	7.00 409.63 Low 0.03 0.00 0.00 44,635.00 0.04 44,635.00 0.20	07/01/1991 11/01/1990 <b>Date</b> 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020 U 11/14/1997	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 0.22 38,133.00 4.13	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	40 70 <b>No. of</b> <b>Samples</b> 33 33 33 33 63 63 33 63 33 63 33	22.50 494.90 High 1.35 0.01 0.20 0.00 0.47 0.00 27.50 0.02	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009 U 12/20/1993 U 06/30/2009 11/06/2014	7.00 409.63 Low 0.03 0.00 0.00 44,635.00 0.04 44,635.00 0.20 0.01	07/01/1991 11/01/1990 <b>Date</b> 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020 U 11/14/1997 06/23/1994	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 0.22 38,133.00 4.13 0.01	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	40 70 <b>No. of</b> <b>Samples</b> 33 33 33 33 63 63 33 63 33 63 33 33 33	22.50 494.90 High 1.35 0.01 0.20 0.00 0.47 0.00 27.50 0.02 0.04	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009 U 12/20/1993 U 06/30/2009 11/06/2014 07/29/2009	7.00 409.63 Low 0.03 0.00 0.00 44,635.00 0.04 44,635.00 0.20 0.20 0.01 0.01	07/01/1991 11/01/1990 <b>Date</b> 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020 U 11/14/1997 06/23/1994 07/30/1991	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 0.22 38,133.00 4.13 0.01 0.03	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	40 70 <b>No. of</b> <b>Samples</b> 33 33 33 33 63 33 63 33 63 33 63 33 33	22.50 494.90 High 1.35 0.01 0.20 0.00 0.47 0.00 27.50 0.02 0.04 65.10	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009 U 12/20/1993 U 06/30/2009 11/06/2014 07/29/2009 11/06/2014	7.00 409.63 Low 0.03 0.00 44,635.00 0.04 44,635.00 0.20 0.01 0.01 0.01	07/01/1991 11/01/1990 <b>Date</b> 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020 U 11/14/1997 06/23/1994 07/30/1991 06/30/1995	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 0.22 38,133.00 4.13 0.01 0.03 2.94	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	40 70 <b>No. of</b> <b>Samples</b> 33 33 33 33 63 63 63 63 63 33 63 33 63 33 3	22.50 494.90 High 1.35 0.01 0.20 0.00 0.47 0.00 27.50 0.02 0.04 65.10 0.63	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009 U 12/20/1993 U 06/30/2009 11/06/2014 07/29/2009 11/06/2014 09/15/2010	7.00 409.63 <b>Low</b> 0.03 0.00 44,635.00 0.04 44,635.00 0.20 0.01 0.01 0.01 0.02	07/01/1991 11/01/1990 <b>Date</b> 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020 U 11/14/1997 06/23/1994 07/30/1991 06/30/1995 06/23/1994	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 0.22 38,133.00 4.13 0.01 0.03 2.94 0.14	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved	40 70 <b>No. of</b> <b>Samples</b> 33 33 33 33 63 63 63 63 63 33 63 33 63 33 3	22.50 494.90 High 1.35 0.01 0.20 0.00 0.47 0.00 27.50 0.02 0.04 65.10 0.63 0.17	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009 U 12/20/1993 U 06/30/2009 11/06/2014 07/29/2009 11/06/2014 09/15/2010 09/27/1990	7.00 409.63 0.03 0.00 0.00 44,635.00 0.04 44,635.00 0.20 0.01 0.01 0.01 0.02 0.02	07/01/1991 11/01/1990 <b>Date</b> 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020 U 11/14/1997 06/23/1994 07/30/1991 06/30/1995 06/23/1994 03/08/2021	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 0.22 38,133.00 4.13 0.01 0.03 2.94 0.14 0.06	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	40 70 <b>No. of</b> <b>Samples</b> 33 33 33 33 63 63 63 63 63 33 63 33 33	22.50 494.90 High 1.35 0.01 0.20 0.00 0.47 0.00 27.50 0.02 0.04 65.10 0.63 0.17 5.00	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009 U 12/20/1993 U 06/30/2009 11/06/2014 07/29/2009 11/06/2014 09/15/2010 09/27/1990	7.00 409.63 0.03 0.00 0.00 44,635.00 0.04 44,635.00 0.20 0.01 0.01 0.01 0.01 0.02 0.02 U	07/01/1991 11/01/1990 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020 U 11/14/1997 06/23/1994 07/30/1991 06/30/1995 06/23/1994 03/08/2021 05/24/2005	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 0.22 38,133.00 4.13 0.01 0.03 2.94 0.14 0.06 1.50	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved	40 70 <b>No. of</b> <b>Samples</b> 33 33 33 33 63 63 63 33 63 33 33 33 33	22.50 494.90 High 1.35 0.01 0.20 0.00 0.47 0.00 27.50 0.02 0.04 65.10 0.63 0.17 5.00 0.59	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009 U 12/20/1993 U 06/30/2009 11/06/2014 07/29/2009 11/06/2014 09/15/2010 09/27/1990 11/06/2014	7.00 409.63 0.03 0.00 0.00 44,635.00 0.04 44,635.00 0.20 0.01 0.01 0.01 0.02 0.02 U 0.01	07/01/1991 11/01/1990 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020 U 11/14/1997 06/23/1994 07/30/1991 06/30/1995 06/23/1994 03/08/2021 05/24/2005 07/29/2009	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 0.22 38,133.00 4.13 0.01 0.03 2.94 0.14 0.06 1.50 0.06	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved	40 70 <b>No. of</b> <b>Samples</b> 33 33 33 33 63 63 33 63 33 33 33 33 33	22.50 494.90 High 1.35 0.01 0.20 0.00 0.47 0.00 27.50 0.02 0.04 65.10 0.63 0.17 5.00 0.59 0.0007	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009 U 12/20/1993 U 06/30/2009 11/06/2014 07/29/2009 11/06/2014 09/15/2010 09/27/1990 11/06/2014 07/30/1991	7.00 409.63 0.03 0.00 0.00 44,635.00 0.04 44,635.00 0.20 0.01 0.01 0.01 0.02 0.02 U 0.01 0.01 0.01 0.01 0.001	07/01/1991 11/01/1990 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020 U 11/14/1997 06/23/1994 07/30/1991 06/23/1994 03/08/2021 05/24/2005 07/29/2009 09/27/1990	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 0.22 38,133.00 4.13 0.01 0.03 2.94 0.14 0.06 1.50 0.06 0.0004	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved	40 70 <b>No. of</b> <b>Samples</b> 33 33 33 33 63 63 33 63 33 33 33 33 33	22.50 494.90 High 1.35 0.01 0.20 0.00 0.47 0.00 27.50 0.02 0.04 65.10 0.63 0.17 5.00 0.59 0.0007 0.13	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009 U 12/20/1993 U 06/30/2009 11/06/2014 07/29/2009 11/06/2014 09/15/2010 09/27/1990 09/27/1990 11/06/2014 07/30/1991 05/24/2005	7.00 409.63 0.03 0.00 0.00 44,635.00 0.04 44,635.00 0.20 0.01 0.01 0.01 0.02 0.02 U 0.01 0.01 0.01 0.001 0.001	07/01/1991 11/01/1990 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020 U 11/14/1997 06/23/1994 07/30/1991 06/23/1994 03/08/2021 05/24/2005 07/29/2009 09/27/1990 05/09/2001	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 0.22 38,133.00 4.13 0.01 0.03 2.94 0.14 0.06 1.50 0.06 0.0004 0.05	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved	40 70 <b>No. of</b> <b>Samples</b> 33 33 33 33 63 63 33 63 33 33 33 33 33	22.50 494.90 High 1.35 0.01 0.20 0.00 0.47 0.00 27.50 0.02 0.04 65.10 0.63 0.17 5.00 0.59 0.0007 0.13 0.03	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009 U 12/20/1993 U 06/30/2009 11/06/2014 07/29/2009 11/06/2014 09/15/2010 09/27/1990 09/27/1990 11/06/2014 07/30/1991 05/24/2005 09/15/1992	7.00 409.63 0.03 0.00 0.00 44,635.00 0.04 44,635.00 0.20 0.01 0.01 0.01 0.02 0.02 U 0.02 U 0.01 0.001 0.001 0.01 0.01 0.01	07/01/1991 11/01/1990 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020 U 11/14/1997 06/23/1994 07/30/1991 06/23/1994 03/08/2021 05/24/2005 07/29/2009 09/27/1990 05/09/2001 03/22/2016	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 0.22 38,133.00 4.13 0.01 0.03 2.94 0.14 0.06 1.50 0.06 0.0004 0.05 0.01	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	40 70 <b>No. of</b> <b>Samples</b> 33 33 33 33 63 63 33 63 33 33 33 33 33	22.50 494.90 High 1.35 0.01 0.20 0.00 0.47 0.00 27.50 0.02 0.04 65.10 0.63 0.17 5.00 0.59 0.0007 0.13 0.03 39.00	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009 U 12/20/1993 U 06/30/2009 11/06/2014 07/29/2009 11/06/2014 09/15/2010 09/27/1990 09/27/1990 11/06/2014 07/30/1991 05/24/2005 09/15/1992 03/22/1993	7.00 409.63 0.03 0.00 0.00 44,635.00 0.04 44,635.00 0.20 0.01 0.01 0.01 0.02 0.02 U 0.02 U 0.01 0.02 0.02 U 0.01 0.001 0.01 0.01 0.01 0.01 0.01 0	07/01/1991 11/01/1990 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020 U 11/14/1997 06/23/1994 07/30/1991 06/23/1994 07/30/1995 06/23/1994 03/08/2021 05/24/2005 07/29/2009 09/27/1990 05/09/2001 03/22/2016 02/12/2023	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 4.13 0.01 0.03 2.94 0.14 0.06 1.50 0.06 1.50 0.06 0.0004 0.05 0.01 5.64	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	40 70 <b>No. of</b> <b>Samples</b> 33 33 33 33 63 63 33 63 33 33 33 33 33	22.50 494.90 High 1.35 0.01 0.20 0.00 0.47 0.00 27.50 0.02 0.04 65.10 0.63 0.17 5.00 0.63 0.17 5.00 0.59 0.0007 0.13 0.03 39.00 0.0010	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009 U 12/20/1993 U 06/30/2009 11/06/2014 07/29/2009 11/06/2014 09/15/2010 09/27/1990 09/27/1990 11/06/2014 07/30/1991 05/24/2005 09/15/1992 03/22/1993 07/30/1991	7.00 409.63 0.03 0.00 0.00 44,635.00 0.04 44,635.00 0.20 0.01 0.01 0.01 0.02 0.02 U 0.01 0.02 0.02 U 0.01 0.001 0.01 0.01 0.01 0.01 0.01 0	07/01/1991 11/01/1990 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020 U 11/14/1997 06/23/1994 07/30/1991 06/30/1995 06/23/1994 03/08/2021 05/24/2005 07/29/2009 09/27/1990 05/09/2001 03/22/2016 02/12/2023	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 4.13 0.01 0.03 2.94 0.14 0.06 1.50 0.06 1.50 0.06 0.0004 0.05 0.01 5.64 0.0007	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	40 70 <b>No. of</b> <b>Samples</b> 33 33 33 33 63 33 63 33 33 33 33 63 33 3	22.50 494.90 1.35 0.01 0.20 0.00 0.47 0.00 27.50 0.02 0.04 65.10 0.63 0.17 5.00 0.63 0.17 5.00 0.59 0.0007 0.13 0.03 39.00 0.0010 44.60	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009 U 12/20/1993 U 06/30/2009 11/06/2014 07/29/2009 11/06/2014 09/15/2010 09/27/1990 09/27/1990 11/06/2014 07/30/1991 05/24/2005 09/15/1992 03/22/1993 07/30/1991 06/16/1992	7.00 409.63 0.03 0.00 0.00 44,635.00 0.04 44,635.00 0.20 0.01 0.01 0.01 0.02 0.02 U 0.01 0.02 0.02 U 0.01 0.02 0.02 U 0.01 0.001 0.01 0.01 0.01 0.01 0.01 0	07/01/1991 11/01/1990 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020 U 11/14/1997 06/23/1994 07/30/1991 06/23/1994 03/08/2021 05/24/2005 07/29/2009 09/27/1990 05/09/2001 03/22/2016 02/12/2023 03/09/2020	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 4.13 0.01 0.03 2.94 0.14 0.06 1.50 0.06 1.50 0.06 0.0004 0.05 0.01 5.64 0.0007 15.73	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Selenium, dissolved Silica, dissolved	40 70 <b>No. of</b> <b>Samples</b> 33 33 33 33 63 33 63 33 33 33 33 33 33	22.50 494.90 1.35 0.01 0.20 0.00 0.47 0.00 27.50 0.02 0.04 65.10 0.63 0.17 5.00 0.59 0.0007 0.59 0.0007 0.13 0.03 39.00 0.0010 44.60 567.00	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009 U 12/20/1993 U 06/30/2009 11/06/2014 07/29/2009 11/06/2014 09/15/2010 09/27/1990 09/27/1990 09/27/1990 11/06/2014 07/30/1991 05/24/2005 09/15/1992 03/22/1993 07/30/1991	7.00 409.63 <b>Low</b> 0.03 0.00 0.00 44,635.00 0.04 44,635.00 0.20 0.01 0.01 0.01 0.02 0.02 U 0.01 0.02 0.02 U 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.	07/01/1991 11/01/1990 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020 U 11/14/1997 06/23/1994 07/30/1991 06/23/1994 03/08/2021 05/24/2005 07/29/2009 09/27/1990 05/09/2001 03/22/2016 02/12/2023 02/12/2023 03/09/2020 03/25/1992	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 0.22 38,133.00 4.13 0.01 0.03 2.94 0.14 0.06 1.50 0.06 0.0004 0.05 0.01 5.64 0.0007 15.73 303.86	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Selenium, dissolved Selenium, dissolved Silica, dissolved Sodium, dissolved	40 70 <b>No. of</b> <b>Samples</b> 33 33 33 63 63 33 63 33 33 33 63 33 33	22.50 494.90 High 1.35 0.01 0.20 0.00 0.47 0.00 27.50 0.02 0.04 65.10 0.63 0.17 5.00 0.63 0.17 5.00 0.59 0.0007 0.13 0.03 39.00 0.0010 44.60 567.00 5.10	06/01/2005 09/08/2022 Date 11/06/2014 08/23/2017 07/29/2009 U 12/20/1993 U 06/30/2009 11/06/2014 07/29/2009 11/06/2014 09/27/1990 09/27/1990 09/27/1990 09/27/1990 11/06/2014 07/30/1991 05/24/2005 09/15/1992 03/22/1993 07/30/1991	7.00 409.63 Low 0.03 0.00 0.00 44,635.00 0.04 44,635.00 0.20 0.01 0.01 0.01 0.02 0.02 U 0.01 0.02 0.02 U 0.01 0.02 0.02 U 0.01	07/01/1991 11/01/1990 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020 U 11/14/1997 06/23/1994 07/30/1991 06/23/1994 03/08/2021 05/24/2005 07/29/2009 09/27/1990 05/09/2011 03/22/2016 02/12/2023 02/12/2023 03/09/2020 03/25/1992 04/21/1994	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 0.22 38,133.00 4.13 0.01 0.03 2.94 0.14 0.06 1.50 0.06 0.004 0.05 0.01 5.64 0.0007 15.73 303.86 0.33	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Selenium, dissolved Selenium, dissolved Solium, dissolved	40 70 <b>No. of</b> <b>Samples</b> 33 33 33 63 63 33 63 33 33 33 63 33 33	22.50 494.90 1.35 0.01 0.20 0.00 0.47 0.00 27.50 0.02 0.04 65.10 0.63 0.17 5.00 0.59 0.0007 0.59 0.0007 0.13 0.03 39.00 0.0010 44.60 567.00	06/01/2005 09/08/2022 <b>Date</b> 11/06/2014 08/23/2017 07/29/2009 U 12/20/1993 U 06/30/2009 11/06/2014 07/29/2009 11/06/2014 09/15/2010 09/27/1990 09/27/1990 09/27/1990 11/06/2014 07/30/1991 05/24/2005 09/15/1992 03/22/1993 07/30/1991	7.00 409.63 <b>Low</b> 0.03 0.00 0.00 44,635.00 0.04 44,635.00 0.20 0.01 0.01 0.01 0.02 0.02 U 0.01 0.02 0.02 U 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.	07/01/1991 11/01/1990 08/23/2017 03/15/2022 09/08/1993 U 03/09/2020 U 11/14/1997 06/23/1994 07/30/1991 06/23/1994 03/08/2021 05/24/2005 07/29/2009 09/27/1990 05/09/2001 03/22/2016 02/12/2023 02/12/2023 03/09/2020 03/25/1992	12.34 438.91 <b>Average</b> 0.22 0.00 0.05 38,133.00 0.22 38,133.00 4.13 0.01 0.03 2.94 0.14 0.06 1.50 0.06 1.50 0.06 0.0004 0.05 0.01 5.64 0.0007 15.73 303.86	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Appx. Table A-9: MMC-IRI-4 Annual A-Groove Aquifer

DAUB & ASSOCIATES, INC. 



Davamatava	No. of						
Parameters Wet Chemistry	No. of Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	1	528.00	10/05/2014	528.00	10/05/2014	528.00	mg/l
Carbonate as CaCO3		51.40	10/05/2014	51.40	10/05/2014	51.40	mg/l
Total Alkalinity as CaCO3		579.00	10/05/2014	579.00	10/05/2014	579.00	mg/l
Bromide		U	10/05/2014	U	10/05/2014	U	mg/l
Cation-Anion Balance		-3.70	10/05/2014	-3.70	10/05/2014	-3.70	%
Sum of Anions	1	14.00	10/05/2014	14.00	10/05/2014	14.00	meq/l
Sum of Cations		13.00	10/05/2014	13.00	10/05/2014	13.00	meq/l
Chemical Oxygen Demand	1	U	10/05/2014	U	10/05/2014	U	mg/l
Chloride		18.60	10/05/2014	18.60	10/05/2014	18.60	mg/l
Conductivity, Lab	1	1,270.00	10/05/2014		10/05/2014	1,270.00	umhos
Fluoride		16.40	10/05/2014	16.40	10/05/2014	16.40	mg/l
Hardness as CaCO3		46.00	10/05/2014	46.00	10/05/2014	46.00	mg/l
Nitrate as N, dissolved		40.00 U		40.00 U		40.00 U	
	1	U	10/05/2014	U U	10/05/2014	U	mg/l
Nitrate/Nitrite as N.	1	U	10/05/2014	U	10/05/2014	U	mg/l
Nitrite as N, dissolved		-	10/05/2014	•	10/05/2014		mg/l
Nitrogen, Ammonia		0.40	10/05/2014	0.40	10/05/2014	0.40	mg/l
Nitrogen, Organic		0.30	10/05/2014	0.30	10/05/2014	0.30	mg/l
Nitrogen, Total Kjeldahl		0.70	10/05/2014	0.70	10/05/2014	0.70	mg/l
pH, lab		8.60	10/05/2014	8.60	10/05/2014	8.60	units
Phosphate, total	1	0.06	10/05/2014	0.06	10/05/2014	0.06	mg/l
Phosphorus, total	1	0.02	10/05/2014	0.02	10/05/2014	0.02	mg/l
SAR in Water	1	17.00	10/05/2014	17.00	10/05/2014	17.00	none
Sulfate		60.00	10/05/2014	60.00	10/05/2014	60.00	mg/l
Sulfide		0.03	10/05/2014	0.03	10/05/2014	0.03	mg/l
Total Dissolved Solids		746.00	10/05/2014	746.00	10/05/2014	746.00	mg/l
Conductivity, Field		N/A	N/A	N/A	N/A	N/A	µmhos
pH, Field	0	N/A	N/A	N/A	N/A	N/A	units
Temperature (°C), Field		N/A	N/A	N/A	N/A	N/A	(°C)
Water Level, Field	0	N/A	N/A	N/A	N/A	N/A	Ft.
Parameters	No. of	High	Date	Low	Date	Average	Units
	Samples	5				-	
Aluminum, dissolved							mg/l
		U	10/05/2014	U	10/05/2014	U	
Arsenic, dissolved	1	0.02	10/05/2014	0.02	10/05/2014	0.02	mg/l
Arsenic, dissolved Barium, dissolved	1	0.02 0.13	10/05/2014 10/05/2014	0.02 U	10/05/2014 10/05/2014	0.02 0.13	mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved	<u>1</u> 1 1	0.02 0.13 U	10/05/2014 10/05/2014 10/05/2014	0.02 U U	10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U	mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	1 1 1 1	0.02 0.13 U 0.25	10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 U	10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13	mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved	<u>1</u> 1 1	0.02 0.13 U 0.25 U	10/05/2014 10/05/2014 10/05/2014	0.02 U U 0.25 U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U 0.25 U	mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	1 1 1 1 1 1 1	0.02 0.13 U 0.25 U 6.00	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 U U 0.25 U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U 0.25	mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	1 1 1 1 1 1 1 1	0.02 0.13 U 0.25 U 6.00 U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 U U 0.25 U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U 0.25 U 6.00 U	mg/l mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	1 1 1 1 1 1 1 1 1 1	0.02 0.13 U 0.25 U 6.00 U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 U U 0.25 U U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U 0.25 U 6.00 U U	mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	1 1 1 1 1 1 1 1 1 1 1 1	0.02 0.13 U 0.25 U 6.00 U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 U U 0.25 U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U 0.25 U 6.00 U	mg/l mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	1 1 1 1 1 1 1 1 1 1 1 1 1	0.02 0.13 U 0.25 U 6.00 U U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 U 0.25 U U U U U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U 0.25 U 6.00 U U U U U	mq/l mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.02 0.13 U 0.25 U 6.00 U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 U U 0.25 U U U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U 0.25 U 6.00 U U U U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.02 0.13 U 0.25 U 6.00 U U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 U U 0.25 U U U U U U U U U U U U U U U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U 0.25 U 6.00 U U U U U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.02 0.13 U 0.25 U 6.00 U U U U 0.12 7.40 0.01	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 U U 0.25 U U U U U U U U U U U U U U U U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U 0.25 U 6.00 U U U U U U 0.12	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.02 0.13 U 0.25 U 6.00 U U U U 0.12 7.40	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 U U 0.25 U U U U U U U U U U U U U U U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U 0.25 U 6.00 U U U U U U 0.12 7.40	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.02 0.13 U 0.25 U 6.00 U U U U 0.12 7.40 0.01	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 U U 0.25 U U U U U U U U U U U U U U U U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U 0.25 U 6.00 U U U U 0.12 7.40 0.01	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.02 0.13 U 0.25 U 6.00 U U U U 0.12 7.40 0.01 U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 U U 0.25 U U U U U U U U U U U U U U U U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U 0.25 U 6.00 U U U U 0.12 7.40 0.01 U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.02 0.13 U 0.25 U 6.00 U U U U 0.12 7.40 0.01 U U U U U U U U U U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 U U 0.25 U U U U U U U U U U U U U U U U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U 0.25 U 6.00 U U U U 0.12 7.40 0.01 U U U U U U U U U U U U U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.02 0.13 U 0.25 U 6.00 U U U 0.12 7.40 0.01 U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 U U 0.25 U U U U U U U U U U U U U U U U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U 0.25 U 6.00 U U U U 0.12 7.40 0.01 U U U U U U U U U U U U U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.02 0.13 U 0.25 U 6.00 U U U 0.12 7.40 0.01 U U U U U 1.30 U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 U U 0.25 U U U U U U U U U U U U U U U U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U 0.25 U 6.00 U U U U 0.12 7.40 0.01 U U U U 1.30 U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.02 0.13 U 0.25 U 6.00 U U U U 0.12 7.40 0.01 U U U 1.30 U 1.30 U 11.80	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 U U 0.25 U U U U U U U U U U U U U U U U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U 0.25 U 6.00 U U U U 0.12 7.40 0.01 U U U U 1.30 U 11.80	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.02 0.13 U 0.25 U 6.00 U U U 0.12 7.40 0.01 U U U 1.30 U 11.80 267.00	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 U U 0.25 U U U U U U U U U U U U U U U U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U 0.25 U 6.00 U U U U 0.12 7.40 0.01 U U U 1.30 U 11.80 267.00	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.02 0.13 U 0.25 U 6.00 U U U U 0.12 7.40 0.01 U U U 1.30 U 1.30 U 11.80	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 U U 0.25 U U U U U U U U U U U U U U U U U U U	10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	0.02 0.13 U 0.25 U 6.00 U U U U 0.12 7.40 0.01 U U U U 1.30 U 11.80	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Appx. Table A-10: O-GMW-A Annual A-Groove Aquifer

DAUB & ASSOCIATES, INC. 20 NEW 10101



	No of	1	1			1	
Parameters Wet Chemistry	No. of	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	Samples 62	4,070.00	11/29/2022	483.00	06/16/2014	1,903.94	mg/l
Carbonate as CaCO3		636.00	03/03/2021	42.60	11/10/2014	162.75	mg/l
Total Alkalinity as CaCO3		4,410.00	11/29/2022	534.00	06/16/2014	2,062.60	mg/l
Bromide		0.46	07/11/2013	0.03	10/04/2011	0.18	mg/l
Cation-Anion Balance		38.70	05/09/2022	-13.40	06/14/2011	-2.45	%
Sum of Anions		137.00	11/29/2022	13.70	10/04/2011	60.92	meg/l
Sum of Cations		136.00	11/07/2023	12.60	06/14/2011	58.02	meg/l
Chemical Oxygen Demand		91.00	04/07/2021	10.00	01/20/2011	29.25	mg/l
Chloride		1,910.00	07/03/2019	11.00	06/14/2011	678.53	mg/l
Conductivity, Lab		11,600	11/29/2022	1,250	10/04/2011	5,370	umhos
Fluoride		28.10	11/14/2018	13.80	09/17/2012	20.53	mg/l
Hardness as CaCO3		72.00	01/24/2018	14.00	11/30/2011	34.77	mg/l
Nitrate as N, dissolved		0.10	11/10/2014	0.02	04/07/2021	0.06	mg/l
Nitrate/Nitrite as N.		0.10	11/10/2014	0.02	04/07/2021	0.06	mg/l
Nitrite as N, dissolved		U	11/10/2014	U	04/07/2021	U	mg/l
Nitrogen, Ammonia		2.26	05/01/2023	0.39	10/04/2011	1.10	mg/l
Nitrogen, Organic		0.90	04/03/2019	0.10	03/23/2011	0.35	mg/l
Nitrogen, Total Kjeldah		3.03	05/01/2023	0.60	03/30/2011	1.37	mg/l
pH, lab		8.90	03/16/2014	8.50	05/14/2018	8.68	units
Phosphate, total		2.96	05/01/2023	0.09	03/23/2011	0.94	mg/l
Phosphorus, total		0.96	05/01/2023	0.03	03/23/2011	0.30	mg/l
SAR in Water		190.00	11/29/2022	31.30	06/14/2011	88.61	none
Sulfate		156.00	09/11/2019	5.41	07/17/2018	35.04	mg/l
Sulfide		4.34	05/01/2023	1.41	01/24/2018	2.63	mg/l
Total Dissolved Solids		7,280.00	11/29/2022	740.00	11/30/2011	3,278.92	mg/l
Conductivity, Field		11,760	01/16/2023	719	03/23/2011	5,421	μmhos
pH, Field							
	110	9.10	06/15/2020	7.30	05/28/2015	8.28	units
Temperature (°C), Field		25.00	07/13/2020	16.35	05/28/2015 05/17/2016	8.28 21.95	(°C)
	118						
Temperature (°C), Field Water Level, Field	118 N/A	25.00	07/13/2016	16.35	05/17/2016	21.95	(°C)
Temperature (°C), Field Water Level, Field Parameters	118 N/A <b>No. of</b>	25.00 N/A	07/13/2016 N/A	16.35 N/A	05/17/2016 N/A	21.95 N/A	(°C) Ft.
Temperature (°C), Field Water Level, Field Parameters Metals	118 N/A No. of Samples	25.00 N/A High	07/13/2016 N/A Date	16.35 N/A <b>Low</b>	05/17/2016 N/A Date	21.95 N/A Average	(°C) Ft. Units
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved	118 N/A <b>No. of</b> Samples 16	25.00 N/A High 0.05	07/13/2016 N/A Date 03/23/2011	16.35 N/A Low	05/17/2016 N/A Date 11/05/2015	21.95 N/A Average 0.04	(°C) Ft. Units mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	118 N/A <b>No. of</b> Samples 16 16	25.00 N/A High 0.05 0.0004	07/13/2016 N/A Date 03/23/2011 03/23/2017	16.35 N/A Low 0.03 0.0002	05/17/2016 N/A Date 11/05/2015 11/05/2015	21.95 N/A Average 0.04 0.0003	(°C) Ft. Units mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	118 N/A No. of Samples 16 16 16	25.00 N/A High 0.05 0.0004 1.53	07/13/2016 N/A Date 03/23/2011 03/23/2017 04/03/2019	16.35 N/A Low 0.03 0.0002 0.03	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018	21.95 N/A Average 0.04 0.0003 0.49	(°C) Ft. Units mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	118 N/A No. of Samples 16 16 16 16	25.00 N/A High 0.05 0.0004 1.53 0.0020	07/13/2016 N/A Date 03/23/2011 03/23/2017 04/03/2019 01/20/2011	16.35 N/A Low 0.03 0.0002 0.03 0.0020	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011	21.95 N/A Average 0.04 0.0003 0.49 0.0020	(°C) Ft. Units mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	118 N/A <b>No. of</b> <b>Samples</b> 16 16 16 16 16 62	25.00 N/A High 0.05 0.0004 1.53 0.0020 3.32	07/13/2016 N/A Date 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023	16.35 N/A 0.03 0.0002 0.03 0.0020 0.36	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011	21.95 N/A <b>Average</b> 0.04 0.0003 0.49 0.0020 1.43	(°C) Ft. Units mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	118 N/A No. of Samples 16 16 16 16 16 62 16	25.00 N/A High 0.05 0.0004 1.53 0.0020 3.32 U	07/13/2016 N/A Date 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023 05/09/2022	16.35 N/A 0.03 0.0002 0.03 0.0020 0.36 U	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011	21.95 N/A <b>Average</b> 0.04 0.0003 0.49 0.0020 1.43 U	(°C) Ft. Units mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved	118 N/A No. of Samples 16 16 16 16 16 62 16 62	25.00 N/A High 0.05 0.0004 1.53 0.0020 3.32 U 14.10	07/13/2016 N/A Date 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023 05/09/2022 01/24/2018	16.35 N/A 0.03 0.0002 0.03 0.0020 0.36 U 1.70	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011 10/04/2011 05/14/2019	21.95 N/A <b>Average</b> 0.04 0.0003 0.49 0.0020 1.43 U 3.19	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	118 N/A <b>No. of</b> <b>Samples</b> 16 16 16 16 62 16 62 16 62 16	25.00 N/A High 0.05 0.0004 1.53 0.0020 3.32 U 14.10 0.02	07/13/2016 N/A Date 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023 05/09/2022 01/24/2018 04/06/2016	16.35 N/A 0.03 0.0002 0.03 0.0020 0.36 U 1.70 0.02	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011 10/04/2011 05/14/2019 04/06/2016	21.95 N/A <b>Average</b> 0.04 0.0003 0.49 0.0020 1.43 U 3.19 0.02	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	118 N/A No. of Samples 16 16 16 16 62 16 62 16 62 16 16	25.00 N/A High 0.05 0.0004 1.53 0.0020 3.32 U 14.10 0.02 U	07/13/2016 N/A Date 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023 05/09/2022 01/24/2018 04/06/2016 05/09/2022	16.35 N/A Low 0.03 0.0002 0.03 0.0020 0.36 U 1.70 0.02 U	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011 10/04/2011 05/14/2019 04/06/2016 10/04/2011	21.95 N/A <b>Average</b> 0.04 0.0003 0.49 0.0020 1.43 U 3.19 0.02 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	118 N/A No. of Samples 16 16 16 16 62 16 62 16 62 16 16 16 16	25.00 N/A High 0.05 0.0004 1.53 0.0020 3.32 U 14.10 0.02 U 1.71	07/13/2016 N/A Date 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023 05/09/2022 01/24/2018 04/06/2016 05/09/2022 05/01/2023	16.35 N/A 0.03 0.0002 0.03 0.0020 0.36 U 1.70 0.02 U 0.02 U 0.05	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011 10/04/2011 05/14/2019 04/06/2016 10/04/2011 03/23/2011	21.95 N/A <b>Average</b> 0.04 0.0003 0.49 0.0020 1.43 U 3.19 0.02 U 0.02 U 0.44	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	118 N/A No. of Samples 16 16 16 16 62 16 62 16 62 16 16 16 16 16 16	25.00 N/A High 0.05 0.0004 1.53 0.0020 3.32 U 14.10 0.02 U 14.10 0.02 U 1.71 U	07/13/2016 N/A Date 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023 05/09/2022 01/24/2018 04/06/2016 05/09/2022 05/01/2023 05/09/2022	16.35 N/A 0.03 0.0002 0.03 0.0020 0.36 U 1.70 0.02 U 0.02 U 0.05 U	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011 10/04/2011 05/14/2019 04/06/2016 10/04/2011 03/23/2011 10/04/2011	21.95 N/A <b>Average</b> 0.04 0.0003 0.49 0.0020 1.43 U 3.19 0.02 U 0.02 U 0.44 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	118 N/A No. of Samples 16 16 16 16 62 16 62 16 16 16 16 16 16 16 16 16	25.00 N/A High 0.05 0.0004 1.53 0.0020 3.32 U 14.10 0.02 U 1.71 U 0.27	07/13/2016 N/A Date 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023 05/09/2022 01/24/2018 04/06/2016 05/09/2022 05/01/2023 05/09/2022 05/09/2022	16.35 N/A 0.03 0.0002 0.03 0.0020 0.36 U 1.70 0.02 U 0.02 U 0.05 U 0.06	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011 10/04/2011 05/14/2019 04/06/2016 10/04/2011 03/23/2011 10/04/2011 01/20/2011	21.95 N/A <b>Average</b> 0.04 0.0003 0.49 0.0020 1.43 U 3.19 0.02 U 0.44 U 0.13	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lithium, dissolved Lithium, dissolved	118 N/A No. of Samples 16 16 16 16 62 16 62 16 16 16 16 16 16 16 16 16 16 16 62	25.00 N/A High 0.05 0.0004 1.53 0.0020 3.32 U 14.10 0.02 U 1.71 U 0.27 13.00	07/13/2016 N/A Date 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023 05/09/2022 01/24/2018 04/06/2016 05/09/2022 05/01/2023 05/09/2022 05/09/2022 05/09/2022 05/09/2022	16.35 N/A 0.03 0.0002 0.03 0.0020 0.36 U 1.70 0.02 U 0.05 U 0.05 U 0.06 2.00	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011 10/04/2011 05/14/2019 04/06/2016 10/04/2011 03/23/2011 10/04/2011 01/20/2011	21.95 N/A <b>Average</b> 0.04 0.0003 0.49 0.0020 1.43 U 3.19 0.02 U 0.44 U 0.13 6.52	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved	118 N/A No. of Samples 16 16 16 16 62 16 62 16 16 16 16 16 16 16 16 16 16 16 16 16	25.00 N/A High 0.05 0.0004 1.53 0.0020 3.32 U 14.10 0.02 U 1.71 U 0.27 13.00 0.05	07/13/2016 N/A Date 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023 05/09/2022 01/24/2018 04/06/2016 05/09/2022 05/01/2023 05/09/2022 05/09/2022 05/09/2022 05/09/2022 04/10/2018 04/03/2019	16.35 N/A 0.03 0.0002 0.03 0.0020 0.36 U 1.70 0.02 U 0.05 U 0.05 U 0.06 2.00 0.01	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011 10/04/2011 05/14/2019 04/06/2016 10/04/2011 03/23/2011 01/20/2011 03/23/2011	21.95 N/A <b>Average</b> 0.04 0.0003 0.49 0.0020 1.43 U 3.19 0.02 U 0.44 U 0.13 6.52 0.02	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved	118 N/A No. of Samples 16 16 16 16 62 16 62 16 16 16 16 16 16 16 16 16 16 16 16 16	25.00 N/A High 0.05 0.0004 1.53 0.0020 3.32 U 14.10 0.02 U 1.71 U 0.27 13.00 0.05 U	07/13/2016 N/A Date 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023 05/09/2022 01/24/2018 04/06/2016 05/09/2022 05/01/2023 05/09/2022 05/09/2022 04/10/2018 04/03/2019 05/09/2022	16.35 N/A 0.03 0.0002 0.03 0.0020 0.36 U 1.70 0.02 U 0.05 U 0.05 U 0.06 2.00 0.01 U	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011 10/04/2011 05/14/2019 04/06/2016 10/04/2011 03/23/2011 01/20/2011 03/23/2011 10/04/2011	21.95 N/A <b>Average</b> 0.04 0.0003 0.49 0.0020 1.43 U 3.19 0.02 U 0.44 U 0.13 6.52 0.02 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Magnese, dissolved Magnese, dissolved	118 N/A No. of Samples 16 16 16 16 62 16 62 16 16 16 16 16 16 16 16 16 16 16 16 16	25.00 N/A High 0.05 0.0004 1.53 0.0020 3.32 U 14.10 0.02 U 1.71 U 0.27 1.3.00 0.05 U U U U U	07/13/2016 N/A Date 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023 05/09/2022 01/24/2018 04/06/2016 05/09/2022 05/01/2023 05/09/2022 05/09/2022 04/10/2018 04/03/2019 05/09/2022 05/09/2022	16.35 N/A 0.03 0.0002 0.03 0.0020 0.36 U 1.70 0.02 U 0.05 U 0.05 U 0.06 2.00 0.01 U U U	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011 10/04/2011 05/14/2019 04/06/2016 10/04/2011 03/23/2011 01/20/2011 03/23/2011 10/04/2011	21.95 N/A <b>Average</b> 0.04 0.0003 0.49 0.0020 1.43 U 3.19 0.02 U 0.44 U 0.13 6.52 0.02 U U U U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved	118 N/A No. of Samples 16 16 16 16 62 16 62 16 16 16 16 16 16 16 16 16 16 16 16 16	25.00 N/A High 0.05 0.0004 1.53 0.0020 3.32 U 14.10 0.02 U 1.71 U 0.27 13.00 0.05 U U U 0.02	07/13/2016 N/A Date 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023 05/09/2022 01/24/2018 04/06/2016 05/09/2022 05/01/2023 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022	16.35 N/A 0.03 0.0002 0.03 0.0020 0.36 U 1.70 0.02 U 0.05 U 0.05 U 0.06 2.00 0.01 U U 0.01	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011 05/14/2019 04/06/2016 10/04/2011 03/23/2011 01/20/2011 03/23/2011 10/04/2011 10/04/2011 10/04/2011 03/23/2011	21.95 N/A <b>Average</b> 0.04 0.0003 0.49 0.0020 1.43 U 3.19 0.02 U 0.44 U 0.13 6.52 0.02 U U 0.13 6.52 0.02 U U 0.02	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	118 N/A No. of Samples 16 16 16 16 62 16 62 16 16 16 16 16 16 16 16 16 16 16 16 16	25.00 N/A High 0.05 0.0004 1.53 0.0020 3.32 U 14.10 0.02 U 1.71 U 0.27 13.00 0.05 U U U 0.02 7.00	07/13/2016 N/A Date 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023 05/09/2022 01/24/2018 04/06/2016 05/09/2022 05/01/2023 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022	16.35 N/A 0.03 0.0002 0.03 0.0020 0.36 U 1.70 0.02 U 0.05 U 0.06 2.00 0.01 U U 0.01 0.01 0.40	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011 05/14/2019 04/06/2016 10/04/2011 03/23/2011 01/20/2011 03/23/2011 10/04/2011 10/04/2011 10/04/2011 10/04/2011 10/04/2011 10/04/2011 10/04/2011	21.95 N/A <b>Average</b> 0.04 0.0003 0.49 0.0020 1.43 U 3.19 0.02 U 0.44 U 0.13 6.52 0.02 U U 0.44 U 0.13 6.52 0.02 U U 0.02 1.62	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved Selenium, dissolved	118 N/A No. of Samples 16 16 16 16 62 16 62 16 16 16 16 16 16 16 16 16 16 16 16 16	25.00 N/A High 0.05 0.0004 1.53 0.0020 3.32 U 14.10 0.02 U 1.71 U 0.27 13.00 0.05 U U 0.05 U U 0.02 7.00 0.0007	07/13/2016 N/A 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023 05/09/2022 01/24/2018 04/06/2016 05/09/2022 05/01/2023 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022	16.35 N/A 0.03 0.0002 0.03 0.0020 0.36 U 1.70 0.02 U 0.05 U 0.06 2.00 0.01 U U 0.01 0.01 0.40 0.0007	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011 05/14/2019 04/06/2016 10/04/2011 03/23/2011 01/20/2011 01/20/2011 03/23/2011 10/04/2011 10/04/2011 03/23/2011 10/04/2011 03/23/2011 11/01/2012 05/09/2022	21.95 N/A <b>Average</b> 0.04 0.0003 0.49 0.0020 1.43 U 3.19 0.02 U 0.44 U 0.13 6.52 0.02 U U 0.44 U 0.13 6.52 0.02 U U 0.02 1.62 0.0007	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnese, dissolved Magnese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	118 N/A No. of Samples 16 16 16 16 62 16 62 16 16 16 16 16 16 16 16 16 16 16 16 16	25.00 N/A 0.05 0.0004 1.53 0.0020 3.32 U 14.10 0.02 U 1.71 U 0.27 13.00 0.05 U U U 0.05 U U 0.02 7.00 0.0007 12.80	07/13/2016 N/A 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023 05/09/2022 01/24/2018 04/06/2016 05/09/2022 11/05/2015	16.35 N/A 0.03 0.0002 0.03 0.0020 0.36 U 1.70 0.02 U 0.05 U 0.06 2.00 0.01 U U 0.01 0.01 0.40 0.0007 9.00	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011 10/04/2011 05/14/2019 04/06/2016 10/04/2011 03/23/2011 01/20/2011 03/23/2011 10/04/2011 03/23/2011 10/04/2011 03/23/2011 10/04/2011 03/23/2011 11/01/2012 05/09/2022 01/24/2018	21.95 N/A <b>Average</b> 0.04 0.0003 0.49 0.0020 1.43 U 3.19 0.02 U 0.44 U 0.13 6.52 0.02 U U 0.44 U 0.13 6.52 0.02 U U 0.02 1.62 0.0007 11.43	(°C) Ft. Units mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Selenium, dissolved Selenium, dissolved Selenium, dissolved Sodium, dissolved	118 N/A No. of Samples 16 16 16 16 62 16 62 16 16 16 16 16 16 16 16 16 16 16 16 16	25.00 N/A 0.05 0.0004 1.53 0.0020 3.32 U 14.10 0.02 U 14.10 0.02 U 1.71 U 0.27 13.00 0.05 U U U 0.02 7.00 0.0007 12.80 3,060.00	07/13/2016 N/A 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023 05/09/2022 01/24/2018 04/06/2016 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 11/05/2015 11/07/2023	16.35 N/A 0.03 0.0002 0.03 0.0020 0.36 U 1.70 0.02 U 0.05 U 0.05 U 0.06 2.00 0.01 U U 0.01 0.01 0.40 0.0007 9.00 279.00	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011 10/04/2011 05/14/2019 04/06/2016 10/04/2011 03/23/2011 01/20/2011 03/23/2011 10/04/2011 03/23/2011 10/04/2011 03/23/2011 10/04/2011 03/23/2011 11/01/2012 05/09/2022 01/24/2018 06/14/2011	21.95 N/A Average 0.04 0.0003 0.49 0.0020 1.43 U 3.19 0.02 U 0.44 U 0.13 6.52 0.02 U U 0.44 U 0.13 6.52 0.02 U U 0.02 1.62 0.0007 11.43 1,300.21	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnese, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Selenium, dissolved Selenium, dissolved Silica, dissolved Strontium, dissolved	118 N/A No. of Samples 16 16 16 62 16 62 16 16 16 16 16 16 16 16 16 16 16 16 16	25.00 N/A 0.05 0.0004 1.53 0.0020 3.32 U 14.10 0.02 U 1.71 U 0.27 13.00 0.05 U U 0.05 U U 0.02 7.00 0.007 12.80 3,060.00 2.67	07/13/2016 N/A 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023 05/09/2022 01/24/2018 04/06/2016 05/09/2022	16.35 N/A 0.03 0.0002 0.03 0.0020 0.36 U 1.70 0.02 U 0.05 U 0.05 U 0.06 2.00 0.01 U U 0.01 0.01 0.01 0.40 0.0007 9.00 279.00 0.44	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011 10/04/2011 05/14/2019 04/06/2016 10/04/2011 03/23/2011 01/20/2011 03/23/2011 10/04/2011 03/23/2011 10/04/2011 03/23/2011 10/04/2011 03/23/2011 11/01/2012 05/09/2022 01/24/2018 06/14/2011	21.95 N/A Average 0.04 0.0003 0.49 0.0020 1.43 U 3.19 0.02 U 0.44 U 0.13 6.52 0.02 U U 0.44 U 0.13 6.52 0.02 U U 0.02 1.62 0.0007 11.43 1,300.21 1.39	(°C) Ft. Units mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Selenium, dissolved Selenium, dissolved Selenium, dissolved Sodium, dissolved	118 N/A No. of Samples 16 16 16 62 16 62 16 16 16 16 16 16 16 16 16 16 16 16 16	25.00 N/A 0.05 0.0004 1.53 0.0020 3.32 U 14.10 0.02 U 14.10 0.02 U 1.71 U 0.27 13.00 0.05 U U U 0.02 7.00 0.0007 12.80 3,060.00	07/13/2016 N/A 03/23/2011 03/23/2017 04/03/2019 01/20/2011 11/07/2023 05/09/2022 01/24/2018 04/06/2016 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 05/09/2022 11/05/2015 11/07/2023	16.35 N/A 0.03 0.0002 0.03 0.0020 0.36 U 1.70 0.02 U 0.05 U 0.05 U 0.06 2.00 0.01 U U 0.01 0.01 0.40 0.0007 9.00 279.00	05/17/2016 N/A Date 11/05/2015 11/05/2015 01/24/2018 01/20/2011 10/04/2011 10/04/2011 05/14/2019 04/06/2016 10/04/2011 03/23/2011 01/20/2011 03/23/2011 10/04/2011 03/23/2011 10/04/2011 03/23/2011 10/04/2011 03/23/2011 11/01/2012 05/09/2022 01/24/2018 06/14/2011	21.95 N/A Average 0.04 0.0003 0.49 0.0020 1.43 U 3.19 0.02 U 0.44 U 0.13 6.52 0.02 U U 0.44 U 0.13 6.52 0.02 U U 0.02 1.62 0.0007 11.43 1,300.21	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Appx. Table A-11: WSW-2 Quarterly A-Groove Aquifer

DAUB & ASSOCIATES, INC. ANY STATISTICS AND STATISTICS



Baramatara	No. of						
Parameters Wet Chemistry	Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3		572.00	11/07/2023	459.00	07/17/2018	492.93	mg/l
Carbonate as CaCO3		86.10	04/03/2019	26.70	04/06/2016	56.28	mg/l
Total Alkalinity as CaCO3		649.00	11/07/2023	518.00	03/03/2021	549.24	mg/l
Bromide		1.54	03/23/2017	0.10	08/22/2014	0.94	mg/l
Cation-Anion Balance		13.30	01/24/2018	-7.70	07/08/2020	-1.28	%
Sum of Anions		17.00	11/07/2023	12.00	10/18/2016	13.34	meq/l
Sum of Cations		17.00	01/24/2018	12.00	08/22/2014	13.02	meq/l
Chemical Oxygen		196.00	04/06/2016	11.00	05/09/2022	76.33	mg/l
Chloride		89.80	11/07/2023	11.60	08/27/2015	21.30	mg/l
Conductivity, Lab	41	1,590	11/07/2023	1,100	08/16/2016	1,214	µmhos
Fluoride		19.80	08/22/2014	13.80	08/01/2023	17.78	mg/l
Hardness as CaCO3		238.00	01/24/2018	12.00	06/27/2017	19.38	mg/l
Nitrate as N, dissolved	1	0.09	08/22/2014	0.09	08/22/2014	0.09	mg/l
Nitrate/Nitrite as N,		0.25	08/22/2014	0.25	08/22/2014	0.25	mg/l
Nitrite as N, dissolved		0.16	08/22/2014	0.16	08/22/2014	0.16	mg/l
Nitrogen, Ammonia		0.60	05/09/2022	0.43	04/06/2016	0.47	mg/l
Nitrogen, Organic		0.40	08/22/2014	0.30	04/03/2019	0.37	mg/l
Nitrogen, Total Kjeldahl		0.80	08/22/2014	0.30	01/24/2018	0.59	mg/l
pH, lab		9.30	10/10/2019	8.40	11/29/2022	8.72	units
Phosphate, total		0.12	08/22/2014	0.05	05/09/2022	0.08	mg/l
Phosphorus, total		0.04	08/22/2014	0.02	05/09/2022	0.03	mg/l
SAR in Water		37.00	09/10/2019	7.60	01/24/2018	33.19	none
Sulfate		57.90	04/06/2016	11.60	01/27/2016	37.54	mg/l
Sulfide		6.93	05/09/2022	0.16	08/22/2014	2.38	mg/l
Total Dissolved Solids		947.00	11/07/2023	661.00	08/27/2015	716.66	mg/l
Conductivity, Field	100	1,633	12/04/2023	632	02/21/2019	1,230	µmhos
pH, Field		8.90	03/16/2016	7.60	04/06/2016	8.41	units
Temperature (°C), Field	100	8.90 23.40	03/16/2016 07/17/2017	7.60 14.85	04/06/2016 02/11/2020	21.41	(°C)
	100	8.90	03/16/2016	7.60	04/06/2016		
Temperature (°C), Field Water Level, Field	100 N/A	8.90 23.40 N/A	03/16/2016 07/17/2017 N/A	7.60 14.85 N/A	04/06/2016 02/11/2020 N/A	21.41 N/A	(°C) Ft.
Temperature (°C), Field Water Level, Field Parameters	100 N/A <b>No. of</b>	8.90 23.40	03/16/2016 07/17/2017	7.60 14.85	04/06/2016 02/11/2020	21.41	(°C)
Temperature (°C), Field Water Level, Field Parameters Metals	100 N/A No. of Samples	8.90 23.40 N/A High	03/16/2016 07/17/2017 N/A Date	7.60 14.85 N/A <b>Low</b>	04/06/2016 02/11/2020 N/A Date	21.41 N/A Average	(°C) Ft. Units
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved	100 N/A <b>No. of</b> Samples 10	8.90 23.40 N/A High 0.04	03/16/2016 07/17/2017 N/A <b>Date</b> 01/24/2018	7.60 14.85 N/A Low	04/06/2016 02/11/2020 N/A Date 08/22/2014	21.41 N/A Average	(°C) Ft. Units mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	100 N/A No. of Samples 10 10	8.90 23.40 N/A High 0.04 0.05	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014	7.60 14.85 N/A Low 0.00 0.00	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017	21.41 N/A Average 0.02 0.01	(°C) Ft. Units mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	100 N/A <b>No. of</b> <b>Samples</b> 10 10 10	8.90 23.40 N/A High 0.04	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023	7.60 14.85 N/A Low 0.00 0.00 0.03	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018	21.41 N/A Average	(°C) Ft. Units mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	100 N/A <b>No. of</b> <b>Samples</b> 10 10 10 10	8.90 23.40 N/A High 0.04 0.05 0.31 U	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014	7.60 14.85 N/A Low 0.00 0.00 0.03 U	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014	21.41 N/A Average 0.02 0.01 0.21 U	(°C) Ft. Units mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	100 N/A <b>No. of</b> <b>Samples</b> 10 10 10 10 41	8.90 23.40 N/A High 0.04 0.05 0.31	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014 11/07/2023	7.60 14.85 N/A Low 0.00 0.00 0.03	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014 04/06/2016	21.41 N/A Average 0.02 0.01 0.21	(°C) Ft. Units mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	100 N/A <b>No. of</b> <b>Samples</b> 10 10 10 10 41	8.90 23.40 N/A High 0.04 0.05 0.31 U 0.27 U	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014 11/07/2023 08/22/2014	7.60 14.85 N/A Low 0.00 0.00 0.03 U 0.21 U	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014 04/06/2016 08/22/2014	21.41 N/A <b>Average</b> 0.02 0.01 0.21 U 0.24 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	100 N/A <b>No. of</b> <b>Samples</b> 10 10 10 10 41 10 41 10 40	8.90 23.40 N/A High 0.04 0.05 0.31 U 0.27	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014 11/07/2023	7.60 14.85 N/A Low 0.00 0.00 0.03 U 0.21	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014 04/06/2016	21.41 N/A <b>Average</b> 0.02 0.01 0.21 U 0.24	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	100 N/A <b>No. of</b> <b>Samples</b> 10 10 10 10 41 10 41 10 40 10	8.90 23.40 N/A High 0.04 0.05 0.31 U 0.27 U 3.40	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014 11/07/2023 08/22/2014 08/22/2014	7.60 14.85 N/A <b>Low</b> 0.00 0.00 0.03 U 0.21 U 2.20	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014 04/06/2016 08/22/2014 03/23/2017	21.41 N/A <b>Average</b> 0.02 0.01 0.21 U 0.24 U 2.53	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	100 N/A <b>No. of</b> <b>Samples</b> 10 10 10 10 41 10 40 10 10 10 10	8.90 23.40 N/A High 0.04 0.05 0.31 U 0.27 U 0.27 U 3.40 U	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014 11/07/2023 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014	7.60 14.85 N/A <b>Low</b> 0.00 0.00 0.03 U 0.21 U 2.20 U	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014 04/06/2016 08/22/2014 03/23/2017 08/22/2014 08/22/2014 03/23/2017	21.41 N/A <b>Average</b> 0.02 0.01 0.21 U 0.24 U 2.53 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	100 N/A <b>No. of</b> <b>Samples</b> 10 10 10 10 41 10 40 10 10 10 10 10	8.90 23.40 N/A High 0.04 0.05 0.31 U 0.27 U 3.40 U U 0.74 U	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014	7.60 14.85 N/A 0.00 0.00 0.03 U 0.21 U 2.20 U 2.20 U U 0.05 U	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014 04/06/2016 08/22/2014 03/23/2017 08/22/2014 03/23/2017 08/22/2014	21.41 N/A <b>Average</b> 0.02 0.01 0.21 U 0.24 U 2.53 U U U 0.17 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved	100 N/A <b>No. of</b> <b>Samples</b> 10 10 10 10 41 10 10 10 10 10 10 10 10	8.90 23.40 N/A High 0.04 0.05 0.31 U 0.27 U 3.40 U U 0.74 U 0.74 U 0.13	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014 11/07/2023 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 05/01/2023 08/22/2014	7.60 14.85 N/A <b>Low</b> 0.00 0.00 0.03 U 0.21 U 2.20 U U 0.05 U 0.06	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014 04/06/2016 08/22/2014 03/23/2017 08/22/2014 03/23/2017 08/22/2014	21.41 N/A <b>Average</b> 0.02 0.01 0.21 U 0.24 U 2.53 U U 0.17 U 0.07	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved	100 N/A <b>No. of</b> <b>Samples</b> 10 10 10 10 41 40 10 10 10 10 10 10 10 10 40	8.90 23.40 N/A High 0.04 0.05 0.31 U 0.27 U 0.27 U 3.40 U U 0.74 U 0.74 U 0.13 3.10	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014 11/07/2023 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 04/06/2016 11/07/2023	7.60 14.85 N/A <b>Low</b> 0.00 0.00 0.03 U 0.21 U 0.21 U 2.20 U U 0.05 U 0.06 1.40	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014 04/06/2016 08/22/2014 03/23/2017 08/22/2014 03/23/2017 08/22/2014 03/23/2017	21.41 N/A <b>Average</b> 0.02 0.01 0.21 U 0.24 U 2.53 U U 0.17 U 0.17 U 0.07 1.80	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lead, dissolved Magnesium, dissolved	100 N/A <b>No. of</b> <b>Samples</b> 10 10 10 10 41 40 10 10 10 10 10 10 10 10 10 10	8.90 23.40 N/A High 0.04 0.05 0.31 U 0.27 U 0.27 U 3.40 U U 0.74 U 0.74 U 0.13 3.10 0.03	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 04/06/2016 11/07/2023 08/22/2014	7.60 14.85 N/A <b>Low</b> 0.00 0.00 0.03 U 0.21 U 0.21 U 2.20 U U 0.05 U 0.05 U 0.06 1.40 0.01	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014 04/06/2016 08/22/2014 03/23/2017 08/22/2014 03/23/2017 08/22/2014 03/23/2017 08/22/2014 08/22/2014 08/22/2014	21.41 N/A Average 0.02 0.01 0.21 U 0.24 U 2.53 U U 0.17 U 0.17 U 0.07 1.80 0.02	(°C) Ft. Units mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved	100 N/A No. of Samples 10 10 10 10 41 10 10 10 10 10 10 10 10 10 10 10 10 10	8.90 23.40 N/A High 0.04 0.05 0.31 U 0.27 U 0.27 U 3.40 U U 0.74 U 0.74 U 0.13 3.10 0.03 U	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 05/01/2023 08/22/2014 04/06/2016 11/07/2023 08/22/2014	7.60 14.85 N/A 0.00 0.00 0.03 U 0.21 U 2.20 U 2.20 U U 0.05 U 0.06 1.40 0.01 U	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014 04/06/2016 08/22/2014 03/23/2017 08/22/2014 03/23/2017 08/22/2014 08/22/2014 09/10/2019 04/06/2016 08/22/2014	21.41 N/A Average 0.02 0.01 0.21 U 0.24 U 2.53 U U 0.17 U 0.17 U 0.07 1.80 0.02 U	(°C) Ft. Units mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved	100 N/A No. of Samples 10 10 10 10 41 10 40 10 10 10 10 10 10 10 10 10 10 10 10 10	8.90 23.40 N/A High 0.04 0.05 0.31 U 0.27 U 0.27 U 3.40 U U 0.74 U 0.74 U 0.13 3.10 0.03 U 0.03 U 0.16	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 05/01/2023 08/22/2014 04/06/2016 11/07/2023 08/22/2014 08/22/2014 08/22/2014	7.60 14.85 N/A 0.00 0.00 0.03 U 0.21 U 2.20 U U 2.20 U U 0.05 U 0.06 1.40 0.01 U 0.07	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014 04/06/2016 08/22/2014 03/23/2017 08/22/2014 03/23/2017 08/22/2014 08/22/2014 09/10/2019 04/06/2016 08/22/2014	21.41 N/A Average 0.02 0.01 0.21 U 0.24 U 2.53 U U 0.17 U 0.07 1.80 0.02 U 0.12	(°C) Ft. Units mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved	100 N/A No. of Samples 10 10 10 10 41 10 40 10 10 10 10 10 10 10 10 10 10 10 10 10	8.90 23.40 N/A High 0.04 0.05 0.31 U 0.27 U 0.27 U 3.40 U U 0.74 U 0.13 3.10 0.03 U 0.03 U 0.16 0.01	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 04/06/2016 11/07/2023 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014	7.60 14.85 N/A 0.00 0.00 0.03 U 0.21 U 2.20 U U 2.20 U U 0.05 U 0.06 1.40 0.01 U 0.07 U U	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014 04/06/2016 08/22/2014 03/23/2017 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014	21.41 N/A Average 0.02 0.01 0.21 U 0.24 U 2.53 U U 0.17 U 0.07 1.80 0.02 U U 0.12 0.01	(°C) Ft. Units mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved Potassium, dissolved	100 N/A No. of Samples 10 10 10 10 41 10 10 10 10 10 10 10 10 10 10 10 10 10	8.90 23.40 N/A High 0.04 0.05 0.31 U 0.27 U 0.27 U 3.40 U U 0.74 U 0.13 3.10 0.03 U 0.13 3.10 0.03 U 0.16 0.01 29.20	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014 11/07/2023 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 04/06/2016 11/07/2023 08/22/2014 04/06/2014 01/24/2018 04/06/2016	7.60 14.85 N/A 0.00 0.00 0.03 U 0.21 U 2.20 U U 0.21 U 0.21 U 0.21 U 0.21 U 0.21 U 0.05 U 0.06 1.40 0.01 U 0.07 U 0.20	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014 04/06/2016 08/22/2014 03/23/2017 08/22/2014 03/23/2017 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014	21.41 N/A Average 0.02 0.01 0.21 U 0.24 U 2.53 U U 0.17 U 0.07 1.80 0.02 U 0.02 U 0.12 0.01 1.32	(°C) Ft. Units mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved Selenium, dissolved	100 N/A No. of Samples 10 10 10 10 41 10 40 10 10 10 10 10 10 10 10 10 10 10 10 10	8.90 23.40 N/A U 0.04 0.05 0.31 U 0.27 U 0.27 U 3.40 U U 0.74 U 0.13 3.10 0.03 U 0.13 3.10 0.03 U 0.16 0.01 29.20 0.0035	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014 11/07/2023 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 04/06/2016 11/07/2023 08/22/2014 08/22/2014 04/06/2016 04/06/2016 04/06/2016	7.60 14.85 N/A 0.00 0.00 0.03 U 0.21 U 2.20 U U 2.20 U U 0.05 U 0.06 1.40 0.01 U 0.01 U 0.07 U 0.20 0.0003	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014 04/06/2016 08/22/2014 03/23/2017 08/22/2014 03/23/2017 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014	21.41 N/A Average 0.02 0.01 0.21 U 0.24 U 2.53 U U 0.17 U 0.07 1.80 0.02 U 0.12 0.01 1.32 0.0017	(°C) Ft. Units mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	100 N/A No. of Samples 10 10 10 10 41 10 40 10 10 10 10 10 10 10 10 10 10 10 10 10	8.90 23.40 N/A U 0.05 0.31 U 0.27 U 0.27 U 3.40 U U 0.74 U 0.13 3.10 0.03 U 0.13 3.10 0.03 U 0.16 0.01 29.20 0.0035 13.50	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014 11/07/2023 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 04/06/2016 11/07/2023 08/22/2014 04/06/2016 04/06/2016 04/06/2016 04/07/2021 07/08/2020	7.60 14.85 N/A 0.00 0.00 0.03 U 0.21 U 0.21 U 2.20 U U 0.05 U 0.06 1.40 0.01 U 0.06 1.40 0.01 U 0.07 U 0.07 U 0.20 0.0003 10.80	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014 04/06/2016 08/22/2014 03/23/2017 08/22/2014 03/23/2017 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014	21.41 N/A <b>Average</b> 0.02 0.01 0.21 U 0.24 U 2.53 U U 0.17 U 0.07 1.80 0.02 U 0.12 0.01 1.32 0.0017 12.49	(°C) Ft. mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Selenium, dissolved Selenium, dissolved Silica, dissolved	100 N/A No. of Samples 10 10 10 10 41 10 40 10 10 10 10 10 10 10 10 10 10 10 10 10	8.90 23.40 N/A 0.04 0.05 0.31 U 0.27 U 0.27 U 3.40 U U 0.74 U 0.13 3.10 0.03 U 0.16 0.01 29.20 0.0035 13.50 382.00	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 04/06/2016 11/07/2023 08/22/2014 04/06/2016 04/06/2016 04/06/2016 04/07/2021 07/08/2020 11/07/2023	7.60 14.85 N/A Low 0.00 0.00 0.03 U 0.21 U 0.21 U 2.20 U U 0.05 U 0.06 1.40 0.01 U 0.07 U 0.07 U 0.20 0.003 10.80 258.00	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014 04/06/2016 08/22/2014 03/23/2017 08/22/2014 03/23/2017 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014	21.41 N/A <b>Average</b> 0.02 0.01 0.21 U 0.24 U 2.53 U U 0.17 U 0.07 1.80 0.02 U 0.12 0.01 1.32 0.0017 12.49 283.05	(°C) Ft. mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Selenium, dissolved Selenium, dissolved Silica, dissolved Silica, dissolved	100 N/A No. of Samples 10 10 10 41 10 40 10 10 10 10 10 10 10 10 10 10 10 10 10	8.90 23.40 N/A 0.04 0.05 0.31 U 0.27 U 3.40 U U 0.74 U 0.13 3.10 0.03 U 0.16 0.01 29.20 0.0035 13.50 382.00 0.90	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014 11/07/2023 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 04/06/2016 11/07/2023 08/22/2014 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/07/2021 07/08/2020 11/07/2023 11/07/2023	7.60 14.85 N/A 0.00 0.00 0.03 U 0.21 U 0.21 U 2.20 U U 0.05 U 0.06 1.40 0.01 U 0.06 1.40 0.01 U 0.07 U 0.07 U 0.20 0.003 10.80 258.00 0.45	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014 04/06/2016 08/22/2014 03/23/2017 08/22/2014 03/23/2017 08/22/2014	21.41 N/A <b>Average</b> 0.02 0.01 0.21 U 0.24 U 2.53 U U 0.17 U 0.07 1.80 0.02 U 0.12 0.01 1.32 0.0017 12.49 283.05 0.56	(°C) Ft. mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Selenium, dissolved Selenium, dissolved Silica, dissolved	100 N/A No. of Samples 10 10 10 41 10 40 10 10 10 10 10 10 10 10 10 10 10 10 10	8.90 23.40 N/A 0.04 0.05 0.31 U 0.27 U 0.27 U 3.40 U U 0.74 U 0.13 3.10 0.03 U 0.16 0.01 29.20 0.0035 13.50 382.00	03/16/2016 07/17/2017 N/A Date 01/24/2018 08/22/2014 05/01/2023 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 04/06/2016 11/07/2023 08/22/2014 04/06/2016 04/06/2016 04/06/2016 04/07/2021 07/08/2020 11/07/2023	7.60 14.85 N/A Low 0.00 0.00 0.03 U 0.21 U 0.21 U 2.20 U U 0.05 U 0.06 1.40 0.01 U 0.07 U 0.07 U 0.20 0.003 10.80 258.00	04/06/2016 02/11/2020 N/A Date 08/22/2014 03/23/2017 01/24/2018 08/22/2014 04/06/2016 08/22/2014 03/23/2017 08/22/2014 03/23/2017 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014 08/22/2014	21.41 N/A <b>Average</b> 0.02 0.01 0.21 U 0.24 U 2.53 U U 0.17 U 0.07 1.80 0.02 U 0.12 0.01 1.32 0.0017 12.49 283.05	(°C) Ft. mg/l

#### Appx. Table A-12: WSW-3 Quarterly A-Groove Aquifer

DAUB & ASSOCIATES, INC. 21. H AT AN COUDER AND



Devemetere	No. of						1
Parameters Wet Chemistry	Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	42	524.00	04/07/2021	439.00	08/27/2015	480.88	mg/l
Carbonate as CaCO3	43	537.00	09/25/2014	46.10	01/13/2020	75.56	mg/l
Total Alkalinity as	43	925.00	09/25/2014	511.00	06/09/2015	554.33	mg/l
Bromide	6	1.91	05/09/2022	0.09	08/25/2014	0.73	mg/l
Cation-Anion Balance	42	3.70	01/24/2018	-7.70	07/08/2020	-2.43	%
Sum of Anions	43	22.00	09/25/2014	13.00	06/09/2015	13.63	meg/l
Sum of Cations	43	19.00	09/25/2014	12.00	08/27/2015	12.98	meq/l
Chemical Oxygen	4	53.00	08/25/2014	13.00	04/06/2016	31.25	mg/l
Chloride	43	50.60	11/14/2018	7.87	10/05/2020	17.43	mg/l
Conductivity, Lab	43	2,810	09/25/2014	1,130	04/06/2016	1,250	μmhos
Fluoride	43	19.70	11/14/2018	5.11	09/25/2014	16.48	mg/l
Hardness as CaCO3	43	67.00	01/24/2018	11.00	03/05/2019	13.82	mg/l
Nitrate as N, dissolved	2	0.03	08/25/2014	0.00	09/25/2014	0.02	mg/l
Nitrate/Nitrite as N,	2	0.08	08/25/2014	0.00	09/25/2014	0.02	mg/l
Nitrite as N, dissolved	2	0.05	08/25/2014	0.00	09/25/2014	0.04	mg/l
Nitrogen, Ammonia	11	2.28	09/25/2014	0.35	05/01/2023	0.64	mg/l
Nitrogen, Organic	4	0.40	04/03/2019	0.00	09/25/2014	0.25	mg/l
Nitrogen, Total Kjeldahl	11	1.00	09/25/2014	0.30	03/23/2014	0.25	mg/l
	43	11.70	09/25/2014	8.50	10/05/2020	8.83	
pH, lab	43 11						units
Phosphate, total		0.28	09/25/2014	0.06	05/09/2022	0.10	mg/l
Phosphorus, total	11	0.09	09/25/2014	0.02	05/09/2022	0.03	mg/l
SAR in Water	43	44.00	09/25/2014	15.00	01/24/2018	35.09	none
Sulfate	43	130.00	09/25/2014	20.00	04/06/2016	52.41	mg/l
Sulfide	11	4.10	04/03/2019	0.10	09/25/2014	2.39	mg/l
Total Dissolved Solids	43	1,210.00	09/25/2014	687.00	08/15/2022	731.19	mg/l
Conductivity, Field	101	1,558	10/10/2019	1,073	04/06/2016	1,227	µmhos
pH, Field	101	9.40	01/13/2020	7.70	08/27/2015	8.53	units
Temperature (°C), Field	101	29.00	06/20/2016	13.80	04/19/2017	21.42	(°C)
Water Level, Field	101 N/A	29.00 N/A	06/20/2016 N/A	13.80 N/A	04/19/2017 N/A	21.42 N/A	(°C) Ft.
Water Level, Field	N/A	N/A	N/A	N/A	N/A	N/A	Ft.
Water Level, Field Parameters	N/A No. of						· · ·
Water Level, Field Parameters Metals	N/A	N/A	N/A Date	N/A	N/A Date	N/A	Ft.
Water Level, Field Parameters Metals Aluminum, dissolved	N/A No. of Samples	N/A <b>High</b> 0.42	N/A Date 09/25/2014	N/A Low U	N/A	N/A Average U	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	N/A No. of Samples 11 11	N/A High 0.42 0.0052	N/A Date 09/25/2014 09/25/2014	N/A Low U 0.0003	N/A Date 09/25/2014 04/07/2021	N/A Average U 0.0024	Ft. Units mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	N/A No. of Samples 11 11 11	N/A <b>High</b> 0.42	N/A Date 09/25/2014 09/25/2014 04/06/2016	N/A Low U	N/A Date 09/25/2014 04/07/2021 09/25/2014	N/A Average U	Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	N/A No. of Samples 11 11 11 11	N/A High 0.42 0.0052 0.23 U	N/A Date 09/25/2014 09/25/2014 04/06/2016 04/06/2016	N/A Low U 0.0003 0.02 U	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014	N/A Average U 0.0024 0.09 U	Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	N/A No. of Samples 11 11 11 11 43	N/A High 0.42 0.0052 0.23	N/A Date 09/25/2014 09/25/2014 04/06/2016 04/06/2016 09/25/2014	N/A Low U 0.0003 0.02	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 08/27/2015	N/A Average U 0.0024 0.09 U 0.21	Ft. Units mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	N/A No. of Samples 11 11 11 11 43 11	N/A High 0.42 0.0052 0.23 U 0.44 U	N/A Date 09/25/2014 09/25/2014 04/06/2016 04/06/2016 09/25/2014 04/06/2016	N/A Low U 0.0003 0.02 U 0.18 U	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 08/27/2015 09/25/2014	N/A Average U 0.0024 0.09 U 0.21 U	Ft. Units mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	N/A No. of Samples 11 11 11 43 11 43	N/A High 0.42 0.0052 0.23 U 0.44 U 24.70	N/A Date 09/25/2014 09/25/2014 04/06/2016 04/06/2016 09/25/2014 04/06/2016 01/24/2018	N/A Low U 0.0003 0.02 U 0.18 U 1.89	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 08/27/2015 09/25/2014 11/07/2023	N/A Average U 0.0024 0.09 U 0.21 U 2.73	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	N/A No. of Samples 11 11 11 43 11 43 11 43 11	N/A High 0.42 0.0052 0.23 U 0.44 U 24.70 U	N/A Date 09/25/2014 09/25/2014 04/06/2016 09/25/2014 04/06/2016 01/24/2018 04/06/2016	N/A Low U 0.0003 0.02 U 0.18 U 1.89 U	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 08/27/2015 09/25/2014 11/07/2023 09/25/2014	N/A Average U 0.0024 0.09 U 0.21 U 2.73 U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	N/A No. of Samples 11 11 11 43 11 43 11 43 11 11 11	N/A High 0.42 0.0052 0.23 U 0.44 U 24.70 U U	N/A Date 09/25/2014 09/25/2014 04/06/2016 09/25/2014 04/06/2016 01/24/2018 04/06/2016 04/06/2016	N/A Low U 0.0003 0.02 U 0.18 U 1.89 U U U U	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 08/27/2015 09/25/2014 11/07/2023 09/25/2014 09/25/2014	N/A Average U 0.0024 0.09 U 0.21 U 2.73 U U U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	N/A No. of Samples 11 11 11 43 11 43 11 43 11 11 11 11 11	N/A High 0.42 0.0052 0.23 U 0.44 U 24.70 U U U 1.63	N/A Date 09/25/2014 09/25/2014 04/06/2016 09/25/2014 04/06/2016 01/24/2018 04/06/2016 04/06/2016 04/06/2016 04/03/2019	N/A Low U 0.0003 0.02 U 0.18 U 0.18 U 1.89 U U U 0.02	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 08/27/2015 09/25/2014 11/07/2023 09/25/2014 09/25/2014 09/25/2014	N/A Average U 0.0024 0.09 U 0.21 U 2.73 U U U 0.33	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	N/A No. of Samples 11 11 11 43 11 43 11 43 11 11 11 11 11 11 11	N/A High 0.42 0.0052 0.23 U 0.44 U 24.70 U 24.70 U U 1.63 U	N/A Date 09/25/2014 09/25/2014 04/06/2016 09/25/2014 04/06/2016 01/24/2018 04/06/2016 04/06/2016 04/06/2016 04/03/2019 04/06/2016	N/A Low U 0.0003 0.02 U 0.18 U 0.18 U 1.89 U U U 0.02 U U	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 08/27/2015 09/25/2014 11/07/2023 09/25/2014 09/25/2014 03/23/2017 09/25/2014	N/A Average U 0.0024 0.09 U 0.21 U 2.73 U U U 0.33 U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	N/A No. of Samples 11 11 11 11 43 11 43 11 11 11 11 11 11 11 11 11 1	N/A High 0.42 0.0052 0.23 U 0.44 U 24.70 U 24.70 U 1.63 U 0.14	N/A Date 09/25/2014 09/25/2014 04/06/2016 04/06/2016 09/25/2014 04/06/2016 01/24/2018 04/06/2016 04/06/2016 04/03/2019 04/06/2016 04/07/2021	N/A Low U 0.0003 0.02 U 0.18 U 1.89 U 1.89 U U 0.02 U 0.02 U 0.02 U 0.02	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 09/25/2014 11/07/2023 09/25/2014 09/25/2014 03/23/2017 09/25/2014 03/23/2017	N/A Average U 0.0024 0.09 U 0.21 U 2.73 U U 0.33 U 0.12	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	N/A No. of Samples 11 11 11 11 43 11 43 11 11 11 11 11 11 11 11 43 43 11 11 11 43 43 11 11 11 43 43 11 11 11 11 43 43 11 11 11 11 43 43 11 11 11 11 43 43 11 11 11 11 43 43 11 11 11 11 43 43 11 11 11 11 43 43 11 11 11 11 11 43 11 11 11 11 11 11 11 11 11 1	N/A High 0.42 0.0052 0.23 U 0.44 U 24.70 U 24.70 U 1.63 U 0.14 2.00	N/A Date 09/25/2014 09/25/2014 04/06/2016 04/06/2016 09/25/2014 04/06/2016 01/24/2018 04/06/2016 04/06/2016 04/03/2019 04/06/2016 04/07/2021 08/27/2015	N/A U 0.0003 0.02 U 0.18 U 1.89 U 1.89 U U 0.02 U 0.02 U 0.07 0.30	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 08/27/2015 09/25/2014 11/07/2023 09/25/2014 09/25/2014 03/23/2017 09/25/2014 04/06/2016 09/25/2014	N/A Average U 0.0024 0.09 U 0.21 U 2.73 U U 0.33 U 0.33 U 0.12 1.70	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	N/A No. of Samples 11 11 11 11 43 11 43 11 11 11 11 11 11 11 11 11 1	N/A High 0.42 0.0052 0.23 U 0.44 U 24.70 U 24.70 U 1.63 U 0.14 2.00 0.01	N/A Date 09/25/2014 04/06/2016 04/06/2016 04/06/2016 01/24/2018 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/07/2021 08/27/2015 01/24/2018	N/A Low U 0.0003 0.02 U 0.18 U 1.89 U 1.89 U 0.02 U 0.03 U 0.02 U 0.03 U	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 08/27/2015 09/25/2014 11/07/2023 09/25/2014 09/25/2014 03/23/2017 09/25/2014 04/06/2016 09/25/2014	N/A Average U 0.0024 0.09 U 0.21 U 2.73 U U 0.33 U 0.12 1.70 U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved	N/A No. of Samples 11 11 11 11 43 11 43 11 11 11 11 11 11 11 11 11 1	N/A High 0.42 0.0052 0.23 U 0.44 U 24.70 U 24.70 U 1.63 U 0.14 2.00 0.01 U	N/A Date 09/25/2014 04/06/2016 04/06/2016 04/06/2016 01/24/2018 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/07/2021 08/27/2015 01/24/2018 04/06/2016	N/A U 0.0003 0.02 U 0.18 U 1.89 U 1.89 U U 0.02 U 0.02 U 0.07 0.30 U U U	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 08/27/2015 09/25/2014 09/25/2014 09/25/2014 03/23/2017 09/25/2014 04/06/2016 09/25/2014 09/25/2014	N/A Average U 0.0024 0.09 U 0.21 U 2.73 U U 0.21 U 0.33 U 0.12 1.70 U U U U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved	N/A No. of Samples 11 11 11 11 43 11 43 11 11 11 11 11 11 11 11 11 1	N/A High 0.42 0.0052 0.23 U 0.44 U 24.70 U 24.70 U 1.63 U 0.14 2.00 0.01 U 0.04	N/A Date 09/25/2014 09/25/2014 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/07/2021 08/27/2015 01/24/2018 04/06/2016 01/24/2018	N/A U 0.0003 0.02 U 0.18 U 1.89 U 1.89 U U 0.02 U 0.02 U 0.07 0.30 U U 0.02	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 08/27/2015 09/25/2014 09/25/2014 09/25/2014 03/23/2017 09/25/2014 04/06/2016 09/25/2014 09/25/2014 09/25/2014	N/A Average U 0.0024 0.09 U 0.21 U 2.73 U 0.33 U 0.12 1.70 U U 0.03	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	N/A No. of Samples 11 11 11 11 43 11 43 11 11 11 11 11 11 11 11 11 1	N/A High 0.42 0.0052 0.23 U 0.44 U 24.70 U 24.70 U 1.63 U 0.14 2.00 0.01 U 0.04 0.04 0.00	N/A Date 09/25/2014 04/06/2016 04/06/2016 09/25/2014 04/06/2016 01/24/2018 04/06/2016 04/06/2016 04/06/2016 04/07/2021 08/27/2015 01/24/2018 04/06/2016 01/24/2018 04/06/2014	N/A U 0.0003 0.02 U 0.18 U 1.89 U 1.89 U 1.89 U 0.02 U 0.07 0.30 U U 0.07 0.30 U U 0.02 0.02 0.00	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 08/27/2015 09/25/2014 09/25/2014 09/25/2014 03/23/2017 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014	N/A Average U 0.0024 0.09 U 0.21 U 2.73 U 0.33 U 0.12 1.70 U U 0.03 0.00	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	N/A No. of Samples 11 11 11 11 43 11 43 11 11 11 11 11 11 11 11 43 11 11 11 43 11 11 43 11 11 43 11 11 43 11 11 43 11 11 43 11 11 43 11 11 43 11 11 43 11 11 43 11 11 43 11 11 43 11 11 43 11 11 43 11 11 11 43 11 11 43 11 11 43 11 11 11 43 11 11 11 11 43 11 11 11 11 43 11 11 11 11 11 11 11 11 11 1	N/A High 0.42 0.0052 0.23 U 0.44 U 24.70 U 1.63 U 0.14 2.00 0.01 U 0.04 0.04 0.00 18.30	N/A Date 09/25/2014 04/06/2016 04/06/2016 09/25/2014 04/06/2016 01/24/2018 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/07/2021 08/27/2015 01/24/2018 04/06/2016 01/24/2018 04/06/2014	N/A U 0.0003 0.02 U 0.18 U 1.89 U 1.89 U U 0.02 U 0.07 0.30 U U 0.07 0.30 U U 0.02 0.00 0.20	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 08/27/2015 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014	N/A Average U 0.0024 0.09 U 0.21 U 2.73 U 0.33 U 0.12 1.70 U U 0.03 0.00 0.96	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	N/A No. of Samples 11 11 11 11 43 11 43 11 11 11 11 11 11 11 11 11 1	N/A High 0.42 0.0052 0.23 U 0.44 U 24.70 U 1.63 U 0.14 2.00 0.01 U 0.01 U 0.04 0.00 18.30 0.0042	N/A Date 09/25/2014 04/06/2016 04/06/2016 09/25/2014 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/07/2021 08/27/2015 01/24/2018 04/06/2016 01/24/2018 04/06/2014 09/25/2014 09/25/2014	N/A U 0.0003 0.02 U 0.18 U 1.89 U 1.89 U 0.02 U 0.07 0.30 U U 0.07 0.30 U U 0.02 0.00 0.02 0.00 0.02 0.00 0.00 0.02 0.000 0.00	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 08/27/2015 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014	N/A Average U 0.0024 0.09 U 0.21 U 2.73 U 0.33 U 0.12 1.70 U U 0.03 0.00 0.96 0.0012	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	N/A No. of Samples 11 11 11 11 43 11 43 11 11 11 11 11 11 11 11 11 43 11 11 11 43 11 11 11 43 11 11 11 11 11 11 11 11 11 1	N/A High 0.42 0.0052 0.23 U 0.44 U 24.70 U 1.63 U U 1.63 U 0.14 2.00 0.01 U 0.04 0.00 18.30 0.0042 172.00	N/A Date 09/25/2014 04/06/2016 04/06/2016 09/25/2014 04/06/2016 01/24/2018 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/07/2021 08/27/2015 01/24/2018 04/06/2016 01/24/2018 04/06/2014 09/25/2014	N/A U 0.0003 0.02 U 0.18 U 1.89 U 1.89 U 0.02 U 0.07 0.30 U U 0.07 0.30 U U 0.02 0.00 0.02 0.00 0.02 0.00 0.02 0.00 0.02 0.00 0.02 0.00 0.02 0.00 0.00 0.02 0.000 0.00 0.00 0.00 0.0000 0.000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.00000 0.00000 0.0000000 0.00000000	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 08/27/2015 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014	N/A Average U 0.0024 0.09 U 0.21 U 2.73 U 0.33 U 0.12 1.70 U U 0.03 0.00 0.96 0.0012 15.54	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved Sodium, dissolved	N/A No. of Samples 11 11 11 11 43 11 43 11 11 11 11 11 11 11 11 11 1	N/A High 0.42 0.0052 0.23 U 0.44 U 24.70 U 1.63 U U 1.63 U 0.14 2.00 0.01 U 0.04 0.00 18.30 0.0042 172.00 416.00	N/A Date 09/25/2014 04/06/2016 04/06/2016 09/25/2014 04/06/2016 01/24/2018 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/07/2021 08/27/2015 01/24/2018 04/06/2016 01/24/2018 04/06/2014 09/25/2014 09/25/2014	N/A U 0.0003 0.02 U 0.18 U 1.89 U 1.89 U 0.02 U 0.02 U 0.07 0.30 U U 0.02 0.00 0.02 0.00 0.02 0.00 0.02 0.00 0.20 0.02 0.00 0.20 0.02 0.02 0.00 0.02 0.00 0.02 0.02 0.00 0.02 0.02 0.00 0.02 0.02 0.00 0.02 0.02 0.00 0.02 0.02 0.02 0.02 0.02 0.00 0.02 0.	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 08/27/2015 09/25/2014	N/A Average U 0.0024 0.09 U 0.21 U 2.73 U U 0.33 U 0.12 1.70 U 0.03 0.00 0.96 0.0012 15.54 285.56	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved Sodium, dissolved Strontium, dissolved	N/A No. of Samples 11 11 11 11 43 11 43 11 11 11 11 11 11 11 11 43 11 11 43 11 11 43 11 11 43 11 43 43 11 43 43 43 43 43 43	N/A High 0.42 0.0052 0.23 U 0.44 U 24.70 U 1.63 U U 1.63 U 0.14 2.00 0.01 U 0.04 0.00 18.30 0.0042 172.00 416.00 7.97	N/A Date 09/25/2014 04/06/2016 04/06/2016 09/25/2014 04/06/2016 01/24/2018 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/06/2016 01/24/2018 04/06/2014 09/25/2014 09/25/2014 09/25/2014 09/25/2014	N/A U 0.0003 0.02 U 0.18 U 1.89 U 1.89 U 0.02 U 0.02 U 0.07 0.30 U U 0.02 0.00 0.02 0.00 0.20 0.0003 8.90 262.00 0.39	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 08/27/2015 09/25/2014 01/07/2023 09/25/2014	N/A Average U 0.0024 0.09 U 0.21 U 2.73 U U 0.33 U 0.33 U 0.12 1.70 U 0.03 0.00 0.96 0.0012 15.54 285.56 0.60	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved Sodium, dissolved	N/A No. of Samples 11 11 11 11 43 11 43 11 11 11 11 11 11 11 11 11 1	N/A High 0.42 0.0052 0.23 U 0.44 U 24.70 U 1.63 U U 1.63 U 0.14 2.00 0.01 U 0.04 0.00 18.30 0.0042 172.00 416.00	N/A Date 09/25/2014 04/06/2016 04/06/2016 09/25/2014 04/06/2016 01/24/2018 04/06/2016 04/06/2016 04/06/2016 04/06/2016 04/07/2021 08/27/2015 01/24/2018 04/06/2016 01/24/2018 04/06/2014 09/25/2014 09/25/2014	N/A U 0.0003 0.02 U 0.18 U 1.89 U 1.89 U 0.02 U 0.02 U 0.07 0.30 U U 0.02 0.00 0.02 0.00 0.02 0.00 0.02 0.00 0.20 0.02 0.00 0.20 0.02 0.02 0.00 0.02 0.00 0.02 0.02 0.00 0.02 0.02 0.00 0.02 0.02 0.00 0.02 0.02 0.00 0.02 0.02 0.02 0.02 0.02 0.00 0.02 0.	N/A Date 09/25/2014 04/07/2021 09/25/2014 09/25/2014 08/27/2015 09/25/2014	N/A Average U 0.0024 0.09 U 0.21 U 2.73 U U 0.33 U 0.12 1.70 U 0.03 0.00 0.96 0.0012 15.54 285.56	Ft. Units mg/l

#### Appx. Table A-13: WSW-4 Quarterly A-Groove Aquifer

DAUB & ASSOCIATES, INC. 



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Parameters	No. of	High	Date	Low	Date	Average	Units
Wet Chemistry	Samples	-	00/05/1004	144.00	07/00/1000	-	
Bicarbonate as CaCO3		762.00 406.00	03/25/1994	144.00	07/30/1990	611.66 99.74	mg/l
Carbonate as CaCO3 Total Alkalinity as CaCO3		830.00	05/21/1997 07/31/1991	25.00	07/01/1997 07/30/1990	711.55	mg/l
		10.00		200.00	07/01/1990	1.15	mg/l
Bromide Cation-Anion Balance		24.10	06/26/1991 04/16/2002	0.06	01/13/2021	-0.30	mg/l %
Sum of Anions		18.00	06/14/2017	4.29	07/30/1990	15.73	
Sum of Cations		18.20	04/11/2006	4.29	07/30/1990	15.44	meq/l meq/l
Chemical Oxygen		420.00	06/25/2007	30.00	03/30/1990	81.41	mg/l
Chloride		70.50	06/14/2017	6.00	09/27/1990	15.17	mg/l
Conductivity, Lab		1,850.00	04/24/1991	1,000.00	05/20/1993	1,391.97	μmhos
Fluoride		38.20	02/24/1992	0.20	09/29/1994	23.75	mg/l
Hardness as CaCO3		65.00	09/27/1990	0.00	07/30/1990	11.20	mg/l
Nitrate as N, dissolved		16.50	06/25/2007	0.02	06/26/1991	1.01	mg/l
Nitrate/Nitrite as N,		17.00	06/25/2007	0.02	06/26/1991	1.07	mg/l
Nitrite as N, dissolved		0.55	06/25/2007	0.02	03/30/1990	0.13	mg/l
Nitrogen, Ammonia		9.23	12/26/2018	0.06	07/30/1990	1.85	mg/l
Nitrogen, Organic		29.10	06/26/1991	0.10	06/15/1992	5.08	mg/l
Nitrogen, Total Kjeldahl		30.10	06/26/1991	0.80	06/15/1992	6.81	mg/l
pH, lab		9.80	12/20/1994	8.10	10/28/2002	8.88	units
Phosphate, total		155.00	06/25/2007	0.06	07/18/1995	13.46	mg/l
Phosphorus, total		2.90	09/27/1990	0.02	07/02/1998	0.17	mg/l
SAR in Water	165	158.62	06/26/1990	16.50	09/27/1990	48.20	none
Sulfate		140.00	10/25/1990	0.00	08/16/2017	20.10	mg/l
Sulfide		2.10	07/30/1990	0.02	07/27/2001	0.45	mg/l
Total Dissolved Solids		1,100.00	10/21/1989	446.00	07/30/1990	862.32	mg/l
Conductivity, Field		1,683.00	06/05/2012	925.00	08/02/2006	1,343.32	μmhos
pH, Field		10.12	07/29/2009	7.10	06/10/2020	9.00	units
Temperature (°C), Field	118	19.00	07/31/1991	7.60	04/01/2006	12.54	(°C)
Water Level, Field	102	500.70	06/25/2014	432.37	06/25/2014	473.23	Ft.
			1				
Parameters	No. of						
Metals	Samples	High	Date	Low	Date	Average	Units
Metals Aluminum, dissolved	Samples 30	<b>High</b> 1.54	<b>Date</b> 03/30/1990	<b>Low</b>	<b>Date</b> 07/01/1997	Average	Units mg/l
Metals Aluminum, dissolved Arsenic, dissolved	Samples 30 30	High 1.54 0.30	Date 03/30/1990 10/21/1989	Low 0.04 0.00	Date 07/01/1997 12/03/2012	Average 0.24 0.02	Units mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	Samples           30           30           30	High 1.54 0.30 0.43	Date 03/30/1990 10/21/1989 08/02/2006	Low 0.04 0.00 0.02	Date 07/01/1997 12/03/2012 12/26/2018	Average 0.24 0.02 0.18	Units mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	Samples 30 30 30 29	High 1.54 0.30 0.43 0.01	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991	Low 0.04 0.00 0.02 0.01	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991	Average 0.24 0.02 0.18 0.01	Units mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	Samples 30 30 29 190	High 1.54 0.30 0.43 0.01 3.30	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991	Low 0.04 0.00 0.02 0.01 0.35	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004	Average 0.24 0.02 0.18 0.01 0.68	Units mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	Samples 30 30 29 190 29	High 1.54 0.30 0.43 0.01 3.30 0.01	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989	Low 0.04 0.00 0.02 0.01 0.35 U	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004 07/15/2004	Average 0.24 0.02 0.18 0.01 0.68 U	Units mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	Samples 30 30 29 190 29 187	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990	Low 0.04 0.00 0.02 0.01 0.35 U 0.50	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004 07/15/2004 03/16/2010	Average 0.24 0.02 0.18 0.01 0.68 U 2.30	Units mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	Samples 30 30 29 190 29 187 29	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991	Low 0.04 0.00 0.02 0.01 0.35 U 0.50 U	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004 07/15/2004 03/16/2010 07/15/2004	Average 0.24 0.02 0.18 0.01 0.68 U 2.30 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	Samples 30 30 29 190 29 187 29 30	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007	Low 0.04 0.00 0.02 0.01 0.35 U 0.50 U 0.50 U 0.01	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004 07/15/2004 03/16/2010 07/15/2004 03/30/1990	Average 0.24 0.02 0.18 0.01 0.68 U 2.30 U 0.01	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	Samples 30 30 29 190 29 187 29 30 30 30	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02 0.93	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007 03/30/1990	Low 0.04 0.00 0.02 0.01 0.35 U 0.50 U 0.50 U 0.01 0.01	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004 07/15/2004 03/16/2010 07/15/2004 03/30/1990 07/07/1999	Average 0.24 0.02 0.18 0.01 0.68 U 2.30 U 0.01 0.01 0.17	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	Samples 30 30 29 190 29 187 29 30 30 30 29	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02 0.93 0.10	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007 03/30/1990 10/21/1989	Low 0.04 0.00 0.02 0.01 0.35 U 0.50 U 0.50 U 0.01 0.01 0.02	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004 07/15/2004 03/16/2010 07/15/2004 03/30/1990 07/07/1999 06/26/1991	Average 0.24 0.02 0.18 0.01 0.68 U 2.30 U 0.01 0.17 0.06	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	Samples 30 30 29 190 29 187 29 30 30 29 29 29 29	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02 0.93 0.10 0.20	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007 03/30/1990 10/21/1989 12/27/1990	Low 0.04 0.00 0.02 0.01 0.35 U 0.50 U 0.01 0.01 0.02 0.06	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004 07/15/2004 03/16/2010 07/15/2004 03/30/1990 07/07/1999 06/26/1991 03/30/1990	Average 0.24 0.02 0.18 0.01 0.68 U 2.30 U 0.01 0.17 0.06 0.13	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	Samples 30 30 29 190 29 187 29 30 30 29 29 29 29 189	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007 03/30/1990 10/21/1989 12/27/1990	Low 0.04 0.00 0.02 0.01 0.35 U 0.50 U 0.01 0.01 0.02 0.06 0.30	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004 07/15/2004 03/16/2010 07/15/2004 03/30/1990 06/26/1991 03/30/1990 03/16/2010	Average 0.24 0.02 0.18 0.01 0.68 U 2.30 U 0.01 0.17 0.06 0.13 1.38	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	Samples 30 30 29 190 29 187 29 30 30 29 29 29 29 189 29 189 29	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00 0.07	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007 03/30/1990 10/21/1989 12/27/1990 09/27/1990 09/27/1990	Low 0.04 0.00 0.02 0.01 0.35 U 0.50 U 0.01 0.01 0.02 0.06 0.30 0.01	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004 07/15/2004 03/16/2010 07/15/2004 03/30/1990 06/26/1991 03/30/1990 03/16/2010 07/01/1997	Average 0.24 0.02 0.18 0.01 0.68 U 2.30 U 0.01 0.17 0.06 0.13 1.38 0.03	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved	Samples 30 30 29 190 29 187 29 30 30 29 29 29 29 189 29 189 29 30	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00 0.07 0.00	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007 03/30/1990 10/21/1989 12/27/1990 09/27/1990 06/25/2007 06/15/1992	Low 0.04 0.00 0.02 0.01 0.35 U 0.50 U 0.01 0.02 0.06 0.30 0.01 0.00	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004 07/15/2004 03/16/2010 07/15/2004 03/30/1990 07/07/1999 06/26/1991 03/30/1990 03/16/2010 07/01/1997 06/26/1991	Average 0.24 0.02 0.18 0.01 0.68 U 2.30 U 0.01 0.17 0.06 0.13 1.38 0.03 0.00	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Molybdenum, dissolved	Samples 30 30 29 190 29 187 29 30 30 29 29 29 189 29 189 29 30 29 30 29 30 29 29 30 29 29 30 29 30 29 30 29 29 30 29 30 29 29 30 29 29 30 29 29 30 29 29 30 29 30 29 29 30 29 30 29 30 29 30 29 30 29 30 29 30 29 30 29 30 29 30 29 30 30 29 30 29 30 29 30 29 29 30 29 29 30 29 29 29 29 29 29 29 29 29 29	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00 0.07 0.00 0.60	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007 03/30/1990 10/21/1989 12/27/1990 09/27/1990 06/25/2007 06/15/1992 10/21/1989	Low 0.04 0.00 0.02 0.01 0.35 U 0.50 U 0.01 0.02 0.06 0.30 0.01 0.00 0.01 0.00 0.01	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004 07/15/2004 03/16/2010 07/15/2004 03/30/1990 07/07/1999 06/26/1991 03/30/1990 03/16/2010 07/01/1997 06/26/1991 07/27/2001	Average 0.24 0.02 0.18 0.01 0.68 U 2.30 U 0.01 0.17 0.06 0.13 1.38 0.03 0.00 0.14	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Molybdenum, dissolved Nickel, dissolved	Samples 30 30 29 190 29 187 29 30 30 29 29 189 29 189 29 30 29 30 29 30 30 29 30 30 30 29 30 30 30 29 30 30 30 30 30 30 30 30 30 30	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00 0.07 0.00 0.60 0.03	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007 03/30/1990 10/21/1989 12/27/1990 06/25/2007 06/15/1992 10/21/1989	Low 0.04 0.00 0.02 0.01 0.35 U 0.50 U 0.01 0.01 0.02 0.06 0.30 0.01 0.00 0.01 0.00 0.01 0.00	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004 07/15/2004 03/16/2010 07/15/2004 03/30/1990 03/07/1999 06/26/1991 03/30/1990 03/16/2010 07/01/1997 06/26/1991 07/27/2001 12/03/2012	Average 0.24 0.02 0.18 0.01 0.68 U 2.30 U 0.01 0.17 0.06 0.13 1.38 0.03 0.00 0.14 0.02	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	Samples 30 30 29 190 29 187 29 30 30 29 29 189 29 30 29 30 29 30 29 30 29 30 30 29 30 30 29 189 30 29 189 30 29 187 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 30 30 30 30 30 30 30 30	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00 0.07 0.00 0.60 0.03 13.00	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007 03/30/1990 10/21/1989 12/27/1990 06/25/2007 06/15/1992 10/21/1989 10/21/1989 03/25/1991	Low 0.04 0.00 0.02 0.01 0.35 U 0.50 U 0.01 0.01 0.02 0.06 0.30 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.02 0.01 0.02 0.01 0.50 0.01 0.02 0.01 0.50 0.01 0.01 0.02 0.01 0.02 0.01 0.35 0.01 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.35 0.01 0.01 0.02 0.01 0.02 0.01 0.01 0.02 0.01 0.02 0.01 0.01 0.01 0.02 0.01 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.01 0.00 0.01 0.00 0.01 0.00 0.00 0.01 0.00 0	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004 07/15/2004 03/16/2010 07/15/2004 03/30/1990 03/30/1990 03/026/1991 03/30/1997 06/26/1991 03/2012 06/26/1991 07/27/2001 12/03/2012 06/10/2020	Average 0.24 0.02 0.18 0.01 0.68 U 2.30 U 0.01 0.17 0.06 0.13 1.38 0.03 0.00 0.14 0.02 1.27	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Magnese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	Samples 30 30 29 190 29 187 29 30 30 29 29 189 29 30 29 30 29 30 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 30 30 30 30 30 30 30 30	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00 0.07 0.00 0.60 0.03 13.00 0.00	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007 03/30/1990 10/21/1989 12/27/1990 06/25/2007 06/15/1992 10/21/1989 10/21/1989	Low 0.04 0.00 0.02 0.01 0.35 U 0.50 U 0.01 0.01 0.02 0.06 0.30 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.02 0.01 0.02 0.01 0.02 0.01 0.50 U 0.01 0.01 0.02 0.01 0.50 U 0.01 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.05 0 0 0 0 0 0 0 0 0 0 0 0 0	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004 07/15/2004 03/16/2010 07/15/2004 03/30/1990 03/16/2010 03/16/2010 03/16/2010 07/01/1997 06/26/1991 07/27/2001 12/03/2012 06/10/2020 07/15/2004	Average 0.24 0.02 0.18 0.01 0.68 U 2.30 U 0.01 0.17 0.06 0.13 1.38 0.03 0.00 0.14 0.02 1.27 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Magnesium, dissolved Nickel, dissolved Selenium, dissolved	Samples 30 30 29 190 29 187 29 30 30 29 29 189 29 30 29 30 29 30 29 30 29 30 189 30 189 30 190	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00 0.07 0.00 0.60 0.03 13.00 0.00 35.90	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007 03/30/1990 10/21/1989 12/27/1990 06/25/2007 06/15/1992 10/21/1989 10/21/1989 10/21/1989	Low 0.04 0.00 0.02 0.01 0.35 U 0.50 U 0.01 0.01 0.02 0.06 0.30 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.30 0.01 0.02 0.01 0.02 0.01 0.50 U 0.01 0.02 0.01 0.50 U 0.01 0.02 0.01 0.50 U 0.01 0.02 0.01 0.50 U 0.01 0.01 0.02 0.01 0.02 0.01 0.05 0 0 0 0 0 0 0 0 0 0 0 0 0	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004 07/15/2004 03/16/2010 07/15/2004 03/30/1990 03/16/2010 03/16/2010 03/16/2010 03/16/2010 07/01/1997 06/26/1991 07/27/2001 12/03/2012 06/10/2020 07/15/2004 06/11/2019	Average 0.24 0.02 0.18 0.01 0.68 U 2.30 U 0.01 0.17 0.06 0.13 1.38 0.03 0.00 0.14 0.02 1.27 U 16.83	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	Samples 30 30 29 190 29 187 29 30 30 29 29 189 29 30 29 30 29 30 29 30 29 30 189 30 189 30 190 190 190 190 190 190 190 19	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00 0.07 0.00 0.60 0.03 13.00 0.00 35.90 408.00	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007 03/30/1990 10/21/1989 12/27/1990 06/25/2007 06/15/1992 10/21/1989 10/21/1989 10/21/1989 10/21/1989 03/25/1991	Low 0.04 0.00 0.02 0.01 0.35 U 0.50 U 0.01 0.01 0.02 0.06 0.30 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.30 0.01 0.02 0.01 0.02 0.01 0.50 U 0.01 0.02 0.01 0.50 U 0.01 0.02 0.01 0.50 U 0.01 0.02 0.01 0.50 U 0.01 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.01 0.02 0.01 0.02 0.01 0.01 0.01 0.02 0.01 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.02 0.01 0.00 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004 07/15/2004 03/16/2010 07/15/2004 03/30/1990 03/16/2010 03/16/2010 03/16/2010 07/01/1997 06/26/1991 07/27/2001 12/03/2012 06/10/2020 07/15/2004 06/11/2019 12/27/1990	Average 0.24 0.02 0.18 0.01 0.68 U 2.30 U 0.01 0.17 0.06 0.13 1.38 0.03 0.00 0.14 0.02 1.27 U 16.83 348.25	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesie, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved Strontium, dissolved	Samples 30 30 29 190 29 187 29 30 30 29 29 189 29 30 29 30 29 30 29 30 189 30 190 190 190 190	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00 0.07 0.00 0.60 0.03 13.00 0.00 35.90 408.00 0.83	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007 03/30/1990 10/21/1989 12/27/1990 06/25/2007 06/15/1992 10/21/1989 10/21/1989 10/21/1989 10/21/1989 10/21/1989 03/25/1991	Low 0.04 0.00 0.02 0.01 0.35 U 0.50 U 0.01 0.01 0.02 0.06 0.30 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.02 0.06 0.30 0.01 0.02 0.01 0.02 0.01 0.50 U 0.01 0.02 0.01 0.50 U 0.01 0.02 0.01 0.50 U 0.01 0.02 0.01 0.01 0.02 0.01 0.05 0.01 0.02 0.01 0.01 0.01 0.02 0.01 0.01 0.02 0.01 0.02 0.01 0.01 0.02 0.01 0.02 0.01 0.02 0.00 0.01 0.00 0.00 0.01 0.00 0.00 0.00 0.01 0.00 0.00 0.00 0.01 0.00 0.00 0.00 0.00 0.01 0.00	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004 07/15/2004 03/16/2010 07/15/2004 03/30/1990 03/16/2010 03/16/2010 03/16/2010 03/16/2010 07/01/1997 06/26/1991 07/27/2001 12/03/2012 06/10/2020 07/15/2004 06/11/2019 12/27/1990 10/21/1989	Average 0.24 0.02 0.18 0.01 0.68 U 2.30 U 0.01 0.17 0.06 0.13 1.38 0.03 0.00 0.14 0.02 1.27 U 16.83 348.25 0.50	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesiem, dissolved Magnese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	Samples 30 30 29 190 29 187 29 30 30 29 29 189 29 30 29 30 29 30 29 30 189 30 190 190 190 190 190 30 30 30 30 30 30 30 30 30 3	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00 0.07 0.00 0.60 0.03 13.00 0.00 35.90 408.00	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007 03/30/1990 10/21/1989 12/27/1990 06/25/2007 06/15/1992 10/21/1989 10/21/1989 10/21/1989 10/21/1989 03/25/1991	Low 0.04 0.00 0.02 0.01 0.35 U 0.50 U 0.01 0.01 0.02 0.06 0.30 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.30 0.01 0.02 0.01 0.02 0.01 0.50 U 0.01 0.02 0.01 0.50 U 0.01 0.02 0.01 0.50 U 0.01 0.02 0.01 0.50 U 0.01 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.01 0.02 0.01 0.02 0.01 0.01 0.01 0.02 0.01 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.02 0.01 0.00 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0	Date 07/01/1997 12/03/2012 12/26/2018 06/26/1991 01/27/2004 07/15/2004 03/16/2010 07/15/2004 03/30/1990 03/16/2010 03/16/2010 03/16/2010 07/01/1997 06/26/1991 07/27/2001 12/03/2012 06/10/2020 07/15/2004 06/11/2019 12/27/1990	Average 0.24 0.02 0.18 0.01 0.68 U 2.30 U 0.01 0.17 0.06 0.13 1.38 0.03 0.00 0.14 0.02 1.27 U 16.83 348.25	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Appx. Table A-14: 89-1 Quarterly B-Groove Aquifer

DAUB & ASSOCIATES, INC. 20 Harris N. 10 NIC W/W.



Demonsterre		1					
Parameters Wet Chemistry	No. of	High	Date	Low	Date	Average	Units
Wet Chemistry	Samples	-	00/14/2004	410.00	02/02/2005	760.04	ma/l
Bicarbonate as CaCO3		1,790.00	09/14/2004	419.00	03/23/2005	769.04	mg/l
Carbonate as CaCO3		419.00	03/23/2005	4.00	06/16/1997	88.97	mg/l
Total Alkalinity as CaCO3		1,790.00	09/14/2004	680.00	06/15/2014	854.71	mg/l
Bromide		1.50	07/21/1992	0.10	01/29/1991	0.44	mg/l
Cation-Anion Balance		36.90	08/10/2008	-33.50	09/14/2004	-1.68	%
Sum of Anions		37.50	09/14/2004	15.00	06/26/2002	18.96	meq/l
Sum of Cations		39.50	08/10/2008	11.10	11/23/2010	18.24	meq/l
Chemical Oxygen Demand		210.00	09/15/2007	10.00	08/14/1995	75.00	mg/l
Chloride		293.00	06/14/2008	9.75	01/16/2018	24.38	mg/l
Conductivity, Lab		2,200.00	05/16/2007	1,280.00	07/21/1992	1,602.17	umhos
Fluoride		98.00	03/24/1999	9.00	12/11/2001	22.96	mg/l
Hardness as CaCO3		47.00	10/09/2019	1.00	10/25/1990	15.13	mg/l
Nitrate as N, dissolved		0.27	06/24/2004	0.04	01/29/1991	0.11	mg/l
Nitrate/Nitrite as N.	26	0.27	06/24/2004	0.05	01/29/1991	0.12	mg/l
Nitrite as N, dissolved		0.03	08/16/1994	0.01	01/29/1991	0.02	mg/l
Nitrogen, Ammonia	25	10.90	08/16/1996	0.83	06/28/2006	1.63	mg/l
Nitrogen, Organic	25	12.00	09/15/2007	0.20	01/29/1991	3.56	mg/l
Nitrogen, Total Kjeldah	25	13.00	09/15/2007	0.50	08/14/1995	4.26	mg/l
pH, lab		9.00	04/24/1991	7.40	06/16/1997	8.70	units
Phosphate, total		155.00	06/28/2006	0.06	05/08/2020	8.29	mg/l
Phosphorus, total		3.63	08/01/1990	0.02	06/28/2006	0.27	mg/l
SAR in Water		198.04	10/25/1990	0.08	04/24/1991	48.13	none
Sulfate		333.00	01/20/1992	0.60	09/29/1997	49.26	mg/l
Sulfide		6.21	08/01/1990	0.03	06/28/2006	0.76	mg/l
Total Dissolved Solids		1,490.00	08/10/2008	813.00	11/23/2010	1,014.77	mg/l
Conductivity, Field		2,200.00	05/16/2007	1,135.00	06/16/1997	1,557.72	umhos
pH, Field	192	10.60	12/16/2002	7.00	10/09/2019	8.67	units
pH, Field Temperature (°C), Field	192 133	10.60 19.70	12/16/2002 05/01/2002	7.00 7.90	10/09/2019 02/09/2021	8.67 12.35	units (°C)
pH, Field	192 133	10.60	12/16/2002	7.00	10/09/2019	8.67	units
pH, Field Temperature (°C), Field Water Level, Field	192 133 112	10.60 19.70 547.50	12/16/2002 05/01/2002 08/07/2023	7.00 7.90 507.30	10/09/2019 02/09/2021 01/15/2016	8.67 12.35 531.11	units (°C) Ft.
pH, Field Temperature (°C), Field Water Level, Field Parameters	192 133 112 <b>No. of</b>	10.60 19.70	12/16/2002 05/01/2002	7.00 7.90	10/09/2019 02/09/2021	8.67 12.35	units (°C)
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals	192 133 112 No. of Samples	10.60 19.70 547.50	12/16/2002 05/01/2002 08/07/2023 Date	7.00 7.90 507.30	10/09/2019 02/09/2021 01/15/2016 Date	8.67 12.35 531.11 Average	units (°C) Ft. Units
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved	192 133 112 <b>No. of</b> Samples 26	10.60 19.70 547.50 <b>High</b> 9.47	12/16/2002 05/01/2002 08/07/2023 <b>Date</b> 06/16/1997	7.00 7.90 507.30 Low 0.04	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000	8.67 12.35 531.11 Average 1.73	units (°C) Ft. <b>Units</b> mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	192 133 112 <b>No. of</b> Samples 26 26	10.60 19.70 547.50 <b>High</b> 9.47 0.02	12/16/2002 05/01/2002 08/07/2023 <b>Date</b> 06/16/1997 08/01/1990	7.00 7.90 507.30 Low 0.04 0.00	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012	8.67 12.35 531.11 <b>Average</b> 1.73 0.00	units (°C) Ft. Units mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	192 133 112 <b>No. of</b> <b>Samples</b> 26 26 26 26	10.60 19.70 547.50 <b>High</b> 9.47	12/16/2002 05/01/2002 08/07/2023 <b>Date</b> 06/16/1997 08/01/1990 06/16/1997	7.00 7.90 507.30 Low 0.04 0.00 0.03	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990	8.67 12.35 531.11 Average 1.73	units (°C) Ft. Units mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	192 133 112 <b>No. of</b> <b>Samples</b> 26 26 26 26 26	10.60 19.70 547.50 High 9.47 0.02 0.96 U	12/16/2002 05/01/2002 08/07/2023 <b>Date</b> 06/16/1997 08/01/1990 06/16/1997 06/16/1997	7.00 7.90 507.30 Low 0.04 0.00 0.03 U	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 08/08/1990	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U	units (°C) Ft. Units mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	192 133 112 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 26 135	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93	12/16/2002 05/01/2002 08/07/2023 <b>Date</b> 06/16/1997 08/01/1990 06/16/1997 06/16/1997 03/18/2004	7.00 7.90 507.30 <b>Low</b> 0.04 0.00 0.03 U 0.31	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 08/08/1990 02/21/1994	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74	units (°C) Ft. Units mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	192 133 112 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 26 135 26	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03	12/16/2002 05/01/2002 08/07/2023 <b>Date</b> 06/16/1997 08/01/1990 06/16/1997 06/16/1997 03/18/2004 07/21/1993	7.00 7.90 507.30 <b>Low</b> 0.04 0.00 0.03 U 0.31 0.03	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 08/08/1990 02/21/1994 07/21/1993	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03	units (°C) Ft. Units mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	192 133 112 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 135 26 135	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93	12/16/2002 05/01/2002 08/07/2023 <b>Date</b> 06/16/1997 08/01/1990 06/16/1997 06/16/1997 03/18/2004 07/21/1993 10/09/2019	7.00 7.90 507.30 <b>Low</b> 0.04 0.00 0.03 U 0.31	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 08/08/1990 02/21/1994 07/21/1993 12/12/2008	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74	units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	192 133 112 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 135 26 135 26	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03 15.00 U	12/16/2002 05/01/2002 08/07/2023 <b>Date</b> 06/16/1997 08/01/1990 06/16/1997 03/18/2004 07/21/1993 10/09/2019 06/16/1997	7.00 7.90 507.30 Low 0.04 0.00 0.03 U 0.31 0.03 0.80 U	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 02/21/1994 07/21/1993 12/12/2008 08/08/1990	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03 2.54 U	units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	192 133 112 <b>No. of</b> <b>Samples</b> 26 26 26 26 135 26 135 26 135 26 26	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03 15.00 U 0.40	12/16/2002 05/01/2002 08/07/2023 <b>Date</b> 06/16/1997 08/01/1990 06/16/1997 03/18/2004 07/21/1993 10/09/2019 06/16/1997 07/31/1991	7.00 7.90 507.30 <b>Low</b> 0.04 0.00 0.03 U 0.31 0.03 0.80 U 0.01	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 02/21/1994 07/21/1993 12/12/2008 08/08/1990 06/24/2004	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03 2.54 U 0.21	units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	192 133 112 <b>No. of</b> <b>Samples</b> 26 26 26 26 135 26 135 26 135 26 26 26 26 26	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03 15.00 U 0.40 12.10	12/16/2002 05/01/2002 08/07/2023 <b>Date</b> 06/16/1997 08/01/1990 06/16/1997 03/18/2004 07/21/1993 10/09/2019 06/16/1997 07/31/1991 06/16/1997	7.00 7.90 507.30 <b>Low</b> 0.04 0.00 0.03 U 0.31 0.03 0.80 U 0.01 0.01	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 02/21/1994 07/21/1993 12/12/2008 08/08/1990 06/24/2004 06/16/2005	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03 2.54 U 0.21 1.65	units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	192 133 112 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 135 26 135 26 26 26 26 26 26 26 26	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03 15.00 U 0.40 12.10 0.07	12/16/2002 05/01/2002 08/07/2023 <b>Date</b> 06/16/1997 08/01/1990 06/16/1997 03/18/2004 07/21/1993 10/09/2019 06/16/1997 07/31/1991 06/16/1997 06/16/1997	7.00 7.90 507.30 <b>Low</b> 0.04 0.00 0.03 U 0.31 0.03 0.80 U 0.01 0.01 0.01 0.04	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 02/21/1994 07/21/1993 12/12/2008 08/08/1990 06/24/2004 06/16/2005 07/21/1992	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03 2.54 U 0.21 1.65 0.06	units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Iron, dissolved Lead, dissolved	192 133 112 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 135 26 135 26 26 26 26 26 26 26 26 26 26 26 26 26	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03 15.00 U 0.40 12.10 0.07 0.15	12/16/2002 05/01/2002 08/07/2023 <b>Date</b> 06/16/1997 08/01/1990 06/16/1997 03/18/2004 07/21/1993 10/09/2019 06/16/1997 07/31/1991 06/16/1997 06/16/1997 06/16/1997	7.00 7.90 507.30 <b>Low</b> 0.04 0.00 0.03 U 0.31 0.03 0.80 U 0.01 0.01 0.01 0.04 0.04	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 02/21/1994 07/21/1993 12/12/2008 08/08/1990 06/24/2004 06/16/2005 07/21/1992 07/21/1993	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03 2.54 U 0.21 1.65 0.06 0.13	units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved	192 133 112 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 135 26 135 26 26 26 26 26 26 26 26 26 26 26 26 26	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03 15.00 U 0.40 12.10 0.07 0.15 8.00	12/16/2002 05/01/2002 08/07/2023 <b>Date</b> 06/16/1997 08/01/1990 06/16/1997 06/16/1997 03/18/2004 07/21/1993 10/09/2019 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/09/1999 10/30/1991	7.00 7.90 507.30 <b>Low</b> 0.04 0.00 0.03 U 0.31 0.03 0.80 U 0.01 0.01 0.01 0.01 0.04 0.04 0.90	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 08/08/1990 02/21/1993 12/12/2008 08/08/1990 06/24/2004 06/16/2005 07/21/1993 12/12/2008	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03 2.54 U 0.21 1.65 0.06 0.13 2.20	units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	192 133 112 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 135 26 135 26 26 26 26 26 26 26 26 26 26 26 26 26	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03 15.00 U 0.40 12.10 0.07 0.15 8.00 0.08	12/16/2002 05/01/2002 08/07/2023 08/07/2023 08/01/1997 08/01/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/09/1999 10/30/1991 06/16/1997	7.00 7.90 507.30 0.04 0.04 0.00 0.03 U 0.31 0.03 0.80 U 0.01 0.01 0.01 0.04 0.04 0.04 0.90 0.01	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 08/08/1990 02/21/1993 12/12/2008 08/08/1990 06/24/2004 06/16/2005 07/21/1993 12/12/2008 06/28/2006	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03 2.54 U 0.21 1.65 0.06 0.13 2.20 0.02	units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved	192 133 112 <b>No. of</b> <b>Samples</b> 26 26 26 26 26 135 26 26 26 26 26 26 26 26 26 26 26 26 26	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03 15.00 U 0.40 12.10 0.07 0.15 8.00 0.08 0.02	12/16/2002 05/01/2002 08/07/2023 <b>Date</b> 06/16/1997 08/01/1990 06/16/1997 06/16/1997 03/18/2004 07/21/1993 10/09/2019 06/16/1997 06/16/1997 06/16/1997 06/09/1999 10/30/1991 06/16/1997	7.00 7.90 507.30 0.04 0.04 0.00 0.03 U 0.31 0.03 0.80 U 0.01 0.01 0.04 0.04 0.04 0.90 0.01 0.00	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 08/08/1990 02/21/1993 12/12/2008 08/08/1990 06/24/2004 06/16/2005 07/21/1992 07/21/1993 12/12/2008 06/28/2006 08/14/1995	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03 2.54 U 0.21 1.65 0.06 0.13 2.20 0.02 0.01	units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved	192           133           112           No. of           Samples           26           25           26           26           26           25           26           26	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03 15.00 U 0.40 12.10 0.07 0.15 8.00 0.08 0.02 0.14	12/16/2002 05/01/2002 08/07/2023 08/07/2023 06/16/1997 08/01/1990 06/16/1997 06/16/1997 03/18/2004 07/21/1993 10/09/2019 06/16/1997 06/16/1997 06/16/1997 06/09/1999 10/30/1991 06/16/1997 07/31/1991 08/01/1990	7.00 7.90 507.30 0.04 0.04 0.00 0.03 U 0.31 0.03 0.80 U 0.01 0.01 0.04 0.04 0.04 0.04 0.90 0.01 0.00 0.02	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 08/08/1990 02/21/1993 12/12/2008 08/08/1990 06/24/2004 06/16/2005 07/21/1992 07/21/1993 12/12/2008 06/28/2006 08/14/1995 08/16/1996	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03 2.54 U 0.21 1.65 0.06 0.13 2.20 0.02 0.01 0.07	units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved	192           133           112           No. of           Samples           26           25           26           26           26           26           26           26           26           26           26           26           26           26 <td>10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03 15.00 U 0.40 12.10 0.07 0.15 8.00 0.08 0.02 0.14 0.02</td> <td>12/16/2002 05/01/2002 08/07/2023 08/07/2023 08/01/1997 08/01/1997 06/16/1997 06/16/1997 03/18/2004 07/21/1993 10/09/2019 06/16/1997 06/16/1997 06/16/1997 06/09/1999 10/30/1991 06/16/1997 07/31/1991 08/01/1990 01/29/1991</td> <td>7.00 7.90 507.30 0.04 0.04 0.00 0.03 U 0.31 0.03 0.80 U 0.01 0.01 0.04 0.04 0.04 0.90 0.01 0.01 0.02 0.01</td> <td>10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 08/08/1990 02/21/1993 12/12/2008 08/08/1990 06/24/2004 06/16/2005 07/21/1992 07/21/1993 12/12/2008 06/28/2006 08/14/1995 08/16/1996 09/21/2010</td> <td>8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03 2.54 U 0.21 1.65 0.06 0.13 2.20 0.02 0.01 0.07 0.02</td> <td>units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l</td>	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03 15.00 U 0.40 12.10 0.07 0.15 8.00 0.08 0.02 0.14 0.02	12/16/2002 05/01/2002 08/07/2023 08/07/2023 08/01/1997 08/01/1997 06/16/1997 06/16/1997 03/18/2004 07/21/1993 10/09/2019 06/16/1997 06/16/1997 06/16/1997 06/09/1999 10/30/1991 06/16/1997 07/31/1991 08/01/1990 01/29/1991	7.00 7.90 507.30 0.04 0.04 0.00 0.03 U 0.31 0.03 0.80 U 0.01 0.01 0.04 0.04 0.04 0.90 0.01 0.01 0.02 0.01	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 08/08/1990 02/21/1993 12/12/2008 08/08/1990 06/24/2004 06/16/2005 07/21/1992 07/21/1993 12/12/2008 06/28/2006 08/14/1995 08/16/1996 09/21/2010	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03 2.54 U 0.21 1.65 0.06 0.13 2.20 0.02 0.01 0.07 0.02	units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved Potassium, dissolved	192           133           112           No. of           Samples           26           25           26           26           26           26           26           26           26           26           26           26           26           26           26	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03 15.00 U 0.40 12.10 0.07 0.15 8.00 0.08 0.02 0.14 0.02 12.00	12/16/2002 05/01/2002 08/07/2023 08/07/2023 08/01/1997 08/01/1997 06/16/1997 06/16/1997 03/18/2004 07/21/1993 10/09/2019 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 07/31/1991 08/01/1990 01/29/1991	7.00 7.90 507.30 0.04 0.04 0.00 0.03 U 0.31 0.03 0.80 U 0.01 0.01 0.04 0.04 0.04 0.04 0.04 0.04	10/09/2019 02/09/2021 01/15/2016 06/14/2000 11/27/2012 08/08/1990 08/08/1990 02/21/1993 12/12/2008 08/08/1990 06/24/2004 06/16/2005 07/21/1993 12/12/2008 06/28/2006 08/14/1995 08/16/1996 09/21/2010 05/23/1994	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03 2.54 U 0.21 1.65 0.06 0.13 2.20 0.02 0.01 0.02 0.01 0.07 0.02 1.65	units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	192         133         112         No. of         Samples         26 <td>10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03 15.00 U 0.40 12.10 0.07 0.15 8.00 0.08 0.02 0.14 0.02 12.00 0.00</td> <td>12/16/2002 05/01/2002 08/07/2023 08/07/2023 06/16/1997 08/01/1990 06/16/1997 06/16/1997 03/18/2004 07/21/1993 10/09/2019 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 07/31/1991 08/01/1990 01/29/1991 07/31/1991 08/08/1990</td> <td>7.00 7.90 507.30 0.04 0.04 0.00 0.03 U 0.31 0.03 0.80 U 0.01 0.01 0.04 0.04 0.04 0.04 0.04 0.04</td> <td>10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 08/08/1990 02/21/1993 12/12/2008 08/08/1990 06/24/2004 06/16/2005 07/21/1993 12/12/2008 06/28/2006 08/14/1995 08/16/1996 09/21/2010 05/23/1994 08/08/1990</td> <td>8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03 2.54 U 0.21 1.65 0.06 0.13 2.20 0.02 0.01 0.02 0.01 0.07 0.02 1.65 U</td> <td>units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l</td>	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03 15.00 U 0.40 12.10 0.07 0.15 8.00 0.08 0.02 0.14 0.02 12.00 0.00	12/16/2002 05/01/2002 08/07/2023 08/07/2023 06/16/1997 08/01/1990 06/16/1997 06/16/1997 03/18/2004 07/21/1993 10/09/2019 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 07/31/1991 08/01/1990 01/29/1991 07/31/1991 08/08/1990	7.00 7.90 507.30 0.04 0.04 0.00 0.03 U 0.31 0.03 0.80 U 0.01 0.01 0.04 0.04 0.04 0.04 0.04 0.04	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 08/08/1990 02/21/1993 12/12/2008 08/08/1990 06/24/2004 06/16/2005 07/21/1993 12/12/2008 06/28/2006 08/14/1995 08/16/1996 09/21/2010 05/23/1994 08/08/1990	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03 2.54 U 0.21 1.65 0.06 0.13 2.20 0.02 0.01 0.02 0.01 0.07 0.02 1.65 U	units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	192         133         112         No. of         Samples         26         135         26         135<	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03 15.00 U 0.40 12.10 0.07 0.15 8.00 0.08 0.02 0.14 0.02 12.00 0.00 122.00	12/16/2002 05/01/2002 08/07/2023 08/07/2023 06/16/1997 08/01/1990 06/16/1997 06/16/1997 03/18/2004 07/21/1993 10/09/2019 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 07/31/1991 08/01/1990 01/29/1991 07/31/1991 08/08/1990	7.00 7.90 507.30 0.04 0.04 0.03 U 0.31 0.03 0.80 U 0.01 0.01 0.04 0.04 0.04 0.04 0.04 0.04	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 08/08/1990 02/21/1993 12/12/2008 08/08/1990 06/24/2004 06/16/2005 07/21/1993 12/12/2008 06/28/2006 08/14/1995 08/16/1996 09/21/2010 05/23/1994 08/08/1990 04/24/1991	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03 2.54 U 0.21 1.65 0.06 0.13 2.20 0.02 0.01 0.02 0.01 0.07 0.02 1.65 U 19.38	units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Selenium, dissolved Silica, dissolved	192         133         112         No. of         Samples         26         135         26         135<	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03 15.00 U 0.40 12.10 0.07 0.15 8.00 0.08 0.02 0.14 0.02 12.00 0.00 122.00 882.00	12/16/2002 05/01/2002 08/07/2023 08/07/2023 06/16/1997 08/01/1990 06/16/1997 06/16/1997 03/18/2004 07/21/1993 10/09/2019 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1991 06/16/1991 06/16/1991 07/31/1991 08/01/1991 08/08/1990 10/30/1991 08/10/2008	7.00 7.90 507.30 0.04 0.04 0.00 0.03 U 0.31 0.03 0.80 U 0.01 0.01 0.04 0.04 0.04 0.04 0.04 0.04	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 08/08/1990 02/21/1993 12/12/2008 08/08/1990 06/24/2004 06/16/2005 07/21/1993 12/12/2008 06/28/2006 08/14/1995 08/16/1996 09/21/2010 05/23/1994 08/08/1990 04/24/1991 11/23/2010	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03 2.54 U 0.21 1.65 0.06 0.13 2.20 0.02 0.01 0.02 0.01 0.07 0.02 1.65 U 19.38 408.59	units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Selenium, dissolved Silica, dissolved Silica, dissolved Sodium, dissolved	192         133         112         No. of         Samples         26         135         135         135	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03 15.00 U 0.40 12.10 0.07 0.15 8.00 0.08 0.02 0.14 0.02 12.00 0.00 122.00 882.00 1.30	12/16/2002 05/01/2002 08/07/2023 08/07/2023 08/07/2023 06/16/1997 08/01/1990 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1991 06/16/1991 08/01/1991 08/01/1991 08/03/1991 08/08/1990 10/30/1991 08/10/2008 04/20/1992	7.00 7.90 507.30 0.04 0.04 0.00 0.03 U 0.31 0.03 0.80 U 0.01 0.01 0.04 0.04 0.04 0.04 0.04 0.04	10/09/2019 02/09/2021 01/15/2016 06/14/2000 11/27/2012 08/08/1990 08/08/1990 02/21/1994 07/21/1993 12/12/2008 08/08/1990 06/24/2004 06/16/2005 07/21/1993 12/12/2008 06/28/2006 08/14/1995 08/16/1996 09/21/2010 05/23/1994 08/08/1990 04/24/1991 11/23/2010 06/14/2000	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03 2.54 U 0.21 1.65 0.06 0.13 2.20 0.02 0.01 0.02 0.01 0.07 0.02 1.65 U 19.38 408.59 0.70	units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Selenium, dissolved Selenium, dissolved Solium, dissolved	192         133         112         No. of         Samples         26         135         26         135         135         26	10.60 19.70 547.50 High 9.47 0.02 0.96 U 0.93 0.03 15.00 U 0.40 12.10 0.07 0.15 8.00 0.08 0.02 0.14 0.02 12.00 0.00 122.00 882.00	12/16/2002 05/01/2002 08/07/2023 08/07/2023 06/16/1997 08/01/1990 06/16/1997 06/16/1997 03/18/2004 07/21/1993 10/09/2019 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1997 06/16/1991 06/16/1991 06/16/1991 07/31/1991 08/01/1991 08/08/1990 10/30/1991 08/10/2008	7.00 7.90 507.30 0.04 0.04 0.00 0.03 U 0.31 0.03 0.80 U 0.01 0.01 0.04 0.04 0.04 0.04 0.04 0.04	10/09/2019 02/09/2021 01/15/2016 <b>Date</b> 06/14/2000 11/27/2012 08/08/1990 08/08/1990 02/21/1993 12/12/2008 08/08/1990 06/24/2004 06/16/2005 07/21/1993 12/12/2008 06/28/2006 08/14/1995 08/16/1996 09/21/2010 05/23/1994 08/08/1990 04/24/1991 11/23/2010	8.67 12.35 531.11 <b>Average</b> 1.73 0.00 0.36 U 0.74 0.03 2.54 U 0.21 1.65 0.06 0.13 2.20 0.02 0.01 0.02 0.01 0.07 0.02 1.65 U 19.38 408.59	units (°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Appx. Table A-15: 90-3 Quarterly B-Groove Aquifer

DAUB & ASSOCIATES, INC. 



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Parameters	No. of	High	Date	Low	Date	Average	Units
Wet Chemistry	Samples	-				-	
Bicarbonate as CaCO3		899.00	10/28/2002	524.00	09/14/2004	695.48	mg/l
Carbonate as CaCO3		225.00	09/13/2023	16.00	11/21/2008	95.16	mg/l
Total Alkalinity as CaCO3		984.00	05/07/2018	612.00	04/17/2002	787.23	mg/l
Bromide		0.10	08/12/2004	0.10	08/12/2004	0.10	mg/l
Cation-Anion Balance		13.40	08/02/2006	-12.80	05/07/2018	-2.32	%
Sum of Anions		22.00	05/07/2018	12.60	08/02/2006	17.82	meq/l
Sum of Cations		20.00	05/14/2020	13.60	04/29/2010	17.01	meq/l
<u>Chemical Oxygen Demand</u>		400.00	08/22/2002	10.00	08/02/2006	72.50	mg/l
Chloride		116.00	11/03/2020	2.00	08/02/2006	30.83	mg/l
Conductivity, Lab		1,960	01/12/2021	1,160	08/02/2006	1,575	µmhos
Fluoride		26.90	12/16/2003	2.09	06/06/2017	22.05	mg/l
Hardness as CaCO3	248	47.00	09/30/2008	5.00	11/27/2002	15.70	mg/l
Nitrate as N, dissolved	31	2.06	09/28/2006	0.03	11/06/2014	1.05	mg/l
Nitrate/Nitrite as N,		2.08	09/28/2006	0.02	05/18/2006	0.59	mg/l
Nitrite as N, dissolved		0.21	08/02/2006	0.01	05/18/2006	0.07	mg/l
Nitrogen, Ammonia		1.61	09/30/2008	0.43	05/14/2020	0.90	mg/l
Nitrogen, Organic		27.00	08/22/2002	0.50	08/02/2006	4.59	mg/l
Nitrogen, Total Kjeldahl		28.00	08/22/2002	1.00	04/13/2016	4.79	mg/l
pH, lab		9.20	05/21/2009	7.50	08/30/2008	8.78	units
Phosphate, total		155.00	05/18/2006	0.12	08/18/2010	37.54	mg/l
Phosphorus, total		0.32	05/14/2020	0.03	08/02/2006	0.08	mg/l
SAR in Water		73.30	12/16/2002	23.40	09/30/2008	42.84	none
Sulfate		126.00	09/13/2023	0.00	09/02/2015	17.24	mg/l
Sulfide		0.80	08/22/2002	0.03	09/28/2006	0.24	mg/l
Total Dissolved Solids		1,110	10/06/2020	789	08/02/2006	943	mg/l
Conductivity, Field		2,874	02/10/2016	1,101	10/05/2006	1,559	µmhos
					11/03/2000		
pH, Field		10.01	07/29/2009	6.90	11/04/2019	8.53	units
Temperature (°C), Field	262	22.70	08/02/2016	5.80	01/26/2010	12.11	(°C)
	262				01/26/2019 07/01/2002		
Temperature (°C), Field Water Level, Field	262 258	22.70 547.26	08/02/2016 11/10/2010	5.80 468.30	01/26/2010 07/01/2002	12.11 506.49	(°C) Ft.
Temperature (°C), Field Water Level, Field Parameters	262 258 <b>No. of</b>	22.70	08/02/2016	5.80	01/26/2010	12.11	(°C)
Temperature (°C), Field Water Level, Field Parameters Metals	262 258 No. of Samples	22.70 547.26 High	08/02/2016 11/10/2010 Date	5.80 468.30 <b>Low</b>	01/26/2010 07/01/2002 Date	12.11 506.49 Average	(°C) Ft. Units
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved	262 258 <b>No. of</b> Samples 34	22.70 547.26 High 1.26	08/02/2016 11/10/2010 <b>Date</b> 05/14/2020	5.80 468.30 Low 0.03	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006	12.11 506.49 <b>Average</b> 0.19	(°C) Ft. Units mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	262 258 <b>No. of</b> Samples 34 34	22.70 547.26 High 1.26 0.00	08/02/2016 11/10/2010 <b>Date</b> 05/14/2020 09/30/2008	5.80 468.30 Low 0.03 0.00	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021	12.11 506.49 Average 0.19 0.00	(°C) Ft. Units mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34	22.70 547.26 High 1.26 0.00 0.21	08/02/2016 11/10/2010 <b>Date</b> 05/14/2020 09/30/2008 07/03/2023	5.80 468.30 Low 0.03 0.00 0.00	01/26/2010 07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017	12.11 506.49 <b>Average</b> 0.19 0.00 0.04	(°C) Ft. Units mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34 34 34	22.70 547.26 High 1.26 0.00 0.21 U	08/02/2016 11/10/2010 Date 05/14/2020 09/30/2008 07/03/2023 08/22/2002	5.80 468.30 Low 0.03 0.00 0.00 U	01/26/2010 07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021	12.11 506.49 Average 0.19 0.00 0.04 U	(°C) Ft. Units mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34 34 34 250	22.70 547.26 High 1.26 0.00 0.21 U 0.97	08/02/2016 11/10/2010 <b>Date</b> 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007	5.80 468.30 <b>Low</b> 0.03 0.00 0.00 U 0.34	01/26/2010 07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003	12.11 506.49 <b>Average</b> 0.19 0.00 0.04 U 0.73	(°C) Ft. Units mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34 34 34 250 34	22.70 547.26 High 1.26 0.00 0.21 U 0.97 U	08/02/2016 11/10/2010 <b>Date</b> 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007 08/22/2002	5.80 468.30 <b>Low</b> 0.03 0.00 0.00 U 0.34 U	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021	12.11 506.49 <b>Average</b> 0.19 0.00 0.04 U 0.73 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34 34 250 34 251	22.70 547.26 High 1.26 0.00 0.21 U 0.97 U 14.30	08/02/2016 11/10/2010 <b>Date</b> 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007 08/22/2002 11/05/2021	5.80 468.30 <b>Low</b> 0.03 0.00 0.00 U 0.34 U 1.10	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002	12.11 506.49 <b>Average</b> 0.19 0.00 0.04 U 0.73 U 3.01	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34 34 250 34 251 34	22.70 547.26 High 1.26 0.00 0.21 U 0.97 U 14.30 0.02	08/02/2016 11/10/2010 <b>Date</b> 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006	5.80 468.30 <b>Low</b> 0.03 0.00 0.00 U 0.34 U 1.10 0.02	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006	12.11 506.49 <b>Average</b> 0.19 0.00 0.04 U 0.73 U 3.01 0.02	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34 250 34 250 34 251 34 34	22.70 547.26 High 1.26 0.00 0.21 U 0.97 U 14.30 0.02 U	08/02/2016 11/10/2010 <b>Date</b> 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002	5.80 468.30 <b>Low</b> 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021	12.11 506.49 <b>Average</b> 0.19 0.00 0.04 U 0.73 U 3.01 0.02 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34 250 34 250 34 251 34 34 34 34	22.70 547.26 High 1.26 0.00 0.21 U 0.97 U 14.30 0.02 U 2.08	08/02/2016 11/10/2010 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020	5.80 468.30 <b>Low</b> 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004	12.11 506.49 <b>Average</b> 0.19 0.00 0.04 U 0.73 U 3.01 0.02 U 0.20	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34 250 34 250 34 251 34 34 34 34 34	22.70 547.26 High 1.26 0.00 0.21 U 0.97 U 14.30 0.02 U 2.08 0.04	08/02/2016 11/10/2010 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020 05/06/2019	5.80 468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019	12.11 506.49 <b>Average</b> 0.19 0.00 0.04 U 0.73 U 3.01 0.02 U 0.20 0.04	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Liron, dissolved Lead, dissolved	262 258 <b>No. of</b> 34 34 34 34 250 34 251 34 251 34 34 34 34 34 34 34	22.70 547.26 High 1.26 0.00 0.21 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17	08/02/2016 11/10/2010 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020 05/14/2020 05/06/2019 07/03/2023	5.80 468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.08	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019 08/21/2003	12.11 506.49 0.19 0.00 0.04 U 0.73 U 3.01 0.02 U 0.20 0.20 0.04 0.14	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34 250 34 251 34 251 34 34 34 34 34 34 34 250	22.70 547.26 High 1.26 0.00 0.21 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40	08/02/2016 11/10/2010 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020 05/14/2020 05/06/2019 07/03/2023 09/30/2008	5.80 468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.01 0.04 0.08 0.60	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019 08/21/2003 11/27/2002	12.11 506.49 <b>Average</b> 0.19 0.00 0.04 U 0.73 U 3.01 0.02 U 0.20 0.04 0.14 1.98	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lead, dissolved Magnesium, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34 250 34 251 34 251 34 34 34 34 34 34 34 34 34 34 34 32 50 32	22.70 547.26 High 1.26 0.00 0.21 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19	08/02/2016 11/10/2010 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020 05/14/2020 05/14/2020 05/06/2019 07/03/2023 09/30/2008	5.80 468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.01 0.04 0.08 0.60 0.01	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019 08/21/2003 11/27/2002 03/14/2008	12.11 506.49 <b>Average</b> 0.19 0.00 0.04 U 0.73 U 3.01 0.02 U 0.20 0.04 0.14 1.98 0.03	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved	262 258 <b>No. of</b> 34 34 34 34 250 34 251 34 251 34 34 34 34 34 34 34 34 34 34 34 34 34	22.70 547.26 High 1.26 0.00 0.21 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19 0.00	08/02/2016 11/10/2010 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020 05/14/2020 05/06/2019 07/03/2023 09/30/2008 09/30/2008	5.80 468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.08 0.60 0.01 0.00	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019 08/21/2003 11/27/2002 03/14/2008 09/28/2006	12.11 506.49 <b>Average</b> 0.19 0.00 0.04 U 0.73 U 3.01 0.02 U 0.20 0.20 0.04 0.14 1.98 0.03 0.00	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34 250 34 251 34 251 34 34 34 34 34 34 250 32 32 34 34 34 34	22.70 547.26 High 1.26 0.00 0.21 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19 0.00 0.12	08/02/2016 11/10/2010 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020 05/14/2020 05/06/2019 07/03/2023 09/30/2008 09/30/2008 09/28/2006 08/22/2002	5.80 468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.08 0.60 0.01 0.00 0.01	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2003 11/27/2002 03/14/2008 09/28/2006 08/18/2010	12.11 506.49 <b>Average</b> 0.19 0.00 0.04 U 0.73 U 3.01 0.02 U 0.20 0.20 0.04 0.14 1.98 0.03 0.00 0.04	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34 250 34 251 34 34 34 34 34 250 32 32 32 34 34 34 34 34 34 34 34 34 34	22.70 547.26 High 1.26 0.00 0.21 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19 0.00 0.12 0.03	08/02/2016 11/10/2010 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020 05/14/2020 05/06/2019 07/03/2023 09/30/2008 09/30/2008	5.80 468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.08 0.60 0.01 0.00 0.01 0.00 0.01	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2003 11/27/2002 03/14/2008 09/28/2006 08/18/2010 12/03/2012	12.11 506.49 <b>Average</b> 0.19 0.00 0.04 U 0.73 U 3.01 0.02 U 0.20 0.04 0.14 1.98 0.03 0.00 0.04 0.02	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved Potassium, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34 250 34 251 34 34 34 34 34 250 32 32 34 34 34 250 32 34 34 34 250 32 34 34 250	22.70 547.26 High 1.26 0.00 0.21 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19 0.00 0.12 0.03 6.20	08/02/2016 11/10/2010 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020 05/06/2019 07/03/2023 09/30/2008 09/30/2008 09/28/2002 09/30/2008 09/30/2008	5.80 468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.08 0.60 0.01 0.00 0.01 0.00 0.01 0.01 0.01	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2003 11/27/2002 03/14/2008 09/28/2006 08/18/2010 12/03/2012 11/21/2008	12.11 506.49 0.19 0.00 0.04 U 0.73 U 3.01 0.02 U 0.20 0.04 0.14 1.98 0.03 0.00 0.04 0.02 1.54	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved Selenium, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34 250 34 251 34 34 34 34 34 250 32 34 34 34 34 250 32 34 34 34 34 34 34 34 34 34 34 34 34 34	22.70 547.26 High 1.26 0.00 0.21 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19 0.00 0.12 0.03 6.20 0.00	08/02/2016 11/10/2010 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020 05/06/2019 07/03/2023 09/30/2008 09/30/2008 09/28/2006 08/22/2002 09/30/2008 09/30/2008	5.80 468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.08 0.60 0.01 0.00 0.01 0.00 0.01 0.01 0.01	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2003 11/27/2002 03/14/2008 09/28/2006 08/18/2010 12/03/2012 11/21/2008 05/06/2019	12.11 506.49 0.19 0.00 0.04 U 0.73 U 3.01 0.02 U 0.20 0.04 0.14 1.98 0.03 0.00 0.04 0.02 1.54 0.00	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34 250 34 251 34 34 34 34 34 250 32 34 34 34 34 250 32 34 34 34 251 34 34 251 34 251 34 250	22.70 547.26 High 1.26 0.00 0.21 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19 0.00 0.12 0.03 6.20 0.00 29.30	08/02/2016 11/10/2010 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020 05/14/2020 05/06/2019 07/03/2028 09/30/2008 09/30/2008 09/28/2006 08/22/2002 09/30/2008 09/30/2008 07/24/2002 05/06/2019 04/17/2002	5.80 468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.08 0.60 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.000 0.00	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2003 11/27/2002 03/14/2008 09/28/2006 08/18/2010 12/03/2012 11/21/2008 05/06/2019 08/21/2003	12.11 506.49 0.19 0.00 0.04 U 0.73 U 3.01 0.02 U 0.20 0.04 0.14 1.98 0.03 0.00 0.04 0.02 1.54 0.00 14.64	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34 250 34 251 34 34 34 34 250 32 34 34 34 250 32 34 34 34 250 32 34 34 34 251 34 251 34 251 34	22.70 547.26 High 1.26 0.00 0.21 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19 0.00 0.12 0.03 6.20 0.00 29.30 451.00	08/02/2016 11/10/2010 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020 05/14/2020 05/06/2019 07/03/2023 09/30/2008 09/30/2008 09/30/2008 09/30/2008 09/30/2008 09/30/2008 07/24/2002 05/06/2019 04/17/2002 08/03/2021	5.80 468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.08 0.60 0.01 0.00 0.01 0.00 0.01 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.00 0.01 0.000000	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2003 11/27/2002 03/14/2008 09/28/2006 08/18/2010 12/03/2012 11/21/2008 05/06/2019 08/21/2003 09/11/2013	12.11 506.49 0.19 0.00 0.04 U 0.73 U 3.01 0.02 U 0.20 0.04 0.14 1.98 0.03 0.00 0.04 0.14 1.98 0.03 0.00 0.04 0.02 1.54 0.00 14.64 377.00	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Selenium, dissolved Selenium, dissolved Silica, dissolved Silica, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34 250 34 250 34 34 34 34 34 34 34 34 34 34 34 34 250 32 34 34 34 34 34 34 251 34 34 251 34 251 34 251 34 251 34 251 34 251 34 251 34 34 251 34 34 34 34 34 34 34 34 34 34 34 34 34	22.70 547.26 High 1.26 0.00 0.21 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19 0.00 0.12 0.03 6.20 0.00 29.30 451.00 0.93	08/02/2016 11/10/2010 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020 05/06/2019 07/03/2023 09/30/2008 09/30/2008 09/30/2008 09/30/2008 09/30/2008 09/30/2008 09/30/2008 09/30/2008 07/24/2002 05/06/2019 04/17/2002 08/03/2021 11/03/2020	5.80 468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.08 0.60 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019 08/21/2003 11/27/2002 03/14/2008 09/28/2006 08/18/2010 12/03/2012 11/21/2008 05/06/2019 08/21/2003 09/11/2013 04/27/2004	12.11 506.49 0.19 0.00 0.04 U 0.73 U 3.01 0.02 U 0.20 0.04 0.14 1.98 0.03 0.04 0.14 1.98 0.03 0.00 0.04 0.04 0.02 1.54 0.00 14.64 377.00 0.54	(°C) Ft. Units mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	262 258 <b>No. of</b> <b>Samples</b> 34 34 34 250 34 250 34 34 34 34 34 34 34 250 32 34 34 34 34 250 32 34 34 34 251 34 251 34 251 34 34 251 34 34 34 34 34 34 34 34 34 34 34 34 34	22.70 547.26 High 1.26 0.00 0.21 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19 0.00 0.12 0.03 6.20 0.00 29.30 451.00	08/02/2016 11/10/2010 05/14/2020 09/30/2008 07/03/2023 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020 05/14/2020 05/06/2019 07/03/2023 09/30/2008 09/30/2008 09/30/2008 09/30/2008 09/30/2008 09/30/2008 07/24/2002 05/06/2019 04/17/2002 08/03/2021	5.80 468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.08 0.60 0.01 0.00 0.01 0.00 0.01 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.00 0.01 0.000000	01/26/2010 07/01/2002 <b>Date</b> 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2003 11/27/2002 03/14/2008 09/28/2006 08/18/2010 12/03/2012 11/21/2008 05/06/2019 08/21/2003 09/11/2013	12.11 506.49 0.19 0.00 0.04 U 0.73 U 3.01 0.02 U 0.20 0.04 0.14 1.98 0.03 0.00 0.04 0.14 1.98 0.03 0.00 0.04 0.02 1.54 0.00 14.64 377.00	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

## Appx. Table A-16: BG-4 Monthly B-Groove Aquifer

DAUB & ASSOCIATES, INC. 20 Harris 1000000



Parameters Wet Chemistry         No. of Samples         High High         Date         Low         Date         Average           Bicarbonate as CaCO3         161         869.00         12/18/2013         541.00         12/08/2010         676.56           Carbonate as CaCO3         161         219.00         12/08/2010         48.10         02/10/2020         86.13           Total Alkalinity as CaCO3         161         1,040.00         12/18/2013         633.00         06/11/2014         761.63           Bromide         16         U         08/11/2011         U         05/04/2021         U           Cation-Anion Balance         160         5.90         04/09/2014         -9.70         01/12/2021         -2.52           Sum of Anions         160         23.00         12/18/2013         14.30         06/11/2014         16.93           Sum of Cations         160         20.00         12/18/2013         13.10         04/11/2011         16.09           Chemical Oxygen Demand         15         800.00         01/13/2011         10.00         07/07/2022         214.17           Chloride         160         27.80         06/03/2019         1.320         07/05/2017         1.552           Fluoride         <	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Wet Chemistry         Samples         -	mg/l mg/l % meq/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg
Carbonate as CaCO3         161         219.00         12/08/2010         48.10         02/10/2020         86.13           Total Alkalinity as CaCO3         161         1,040.00         12/18/2013         633.00         06/11/2014         761.63           Bromide         16         U         08/11/2011         U         05/04/2021         U           Cation-Anion Balance         160         5.90         04/09/2014         -9.70         01/12/2021         -2.52           Sum of Anions         160         23.00         12/18/2013         14.30         06/11/2014         16.93           Sum of Cations         160         20.00         12/18/2013         13.10         04/11/2014         16.09           Chemical Oxygen Demand         15         800.00         01/13/2011         10.00         07/07/2022         214.17           Chloride         160         70.00         12/08/2010         10.00         01/20/2011         16.09           Conductivity, Lab         161         8.820         06/03/2019         1.320         07/05/2017         1.552           Fluoride         160         27.80         06/03/2019         14.60         09/17/2012         23.22           Hardness as CaCO3         160	mg/l mg/l % meq/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg
Total Alkalinity as CaCO3         161         1,040.00         12/18/2013         633.00         06/11/2014         761.63           Bromide         16         U         08/11/2011         U         05/04/2021         U           Cation-Anion Balance         160         5.90         04/09/2014         -9.70         01/12/2021         -2.52           Sum of Anions         160         23.00         12/18/2013         14.30         06/11/2014         16.93           Sum of Cations         160         20.00         12/18/2013         13.10         04/11/2011         16.09           Chemical Oxygen Demand         15         800.00         01/13/2011         10.00         07/07/2022         214.17           Chloride         160         70.00         12/08/2010         10.00         01/20/2011         16.09           Conductivity, Lab         161         8.820         06/03/2019         1.320         07/05/2017         1.552           Fluoride         160         27.80         06/03/2019         14.60         09/17/2012         23.22           Hardness as CaCO3         16         0.03         12/27/2012         UH         05/04/2021         UH           Nitrate /Nitrite as N, dissolved         16	mg/l mg/l meq/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg
Bromide         16         U         08/11/2011         U         05/04/2021         U           Cation-Anion Balance         160         5.90         04/09/2014         -9.70         01/12/2021         -2.52           Sum of Anions         160         23.00         12/18/2013         14.30         06/11/2014         16.93           Sum of Cations         160         20.00         12/18/2013         13.10         04/11/2011         16.09           Chemical Oxygen Demand         15         800.00         01/13/2011         10.00         07/07/2022         214.17           Chloride         160         70.00         12/08/2010         10.00         01/20/2011         16.09           Conductivity, Lab         161         8.820         06/03/2019         1,320         07/05/2017         1,552           Hardness as CaCO3         160         18.00         10/03/2023         10.00         09/11/2013         12.71           Nitrate as N, dissolved         16         0.03         12/27/2012         UH         05/04/2021         UH           Nitrate as N, dissolved         16         0.03         12/27/2012         UH         05/04/2021         UH           Nitrogen, Ammonia         15         0.9	mg/l % meg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Cation-Anion Balance         160         5.90         04/09/2014         -9.70         01/12/2021         -2.52           Sum of Anions         160         23.00         12/18/2013         14.30         06/11/2014         16.93           Sum of Cations         160         20.00         12/18/2013         13.10         04/11/2011         16.09           Chemical Oxygen Demand         15         800.00         01/13/2011         10.00         07/07/2022         214.17           Chloride         160         70.00         12/08/2010         10.00         01/20/2011         16.09           Conductivity, Lab         161         8.820         06/03/2019         1.320         07/05/2017         1.552           Fluoride         160         27.80         06/03/2019         14.60         09/17/2012         23.22           Hardness as CaCO3         160         18.00         10/03/2023         10.00         09/11/2013         12.71           Nitrate as N, dissolved         16         0.03         12/27/2012         UH         05/04/2021         UH           Nitrate AN, dissolved         16         UH         08/11/2011         UH         05/04/2021         UH           Nitrogen, Ammonia         15	% meq/l mg/l mg/l μmhos mg/l mg/l mg/l mg/l mg/l
Sum of Anions16023.0012/18/201314.3006/11/201416.93Sum of Cations16020.0012/18/201313.1004/11/201116.09Chemical Oxygen Demand15800.0001/13/201110.0007/07/2022214.17Chloride16070.0012/08/201010.0001/20/201116.09Conductivity, Lab1618,82006/03/20191,32007/05/20171,552Fluoride16027.8006/03/201914.6009/17/201223.22Hardness as CaCO316018.0010/03/202310.0009/11/201312.71Nitrate as N, dissolved160.0312/27/2012UH05/04/2021UHNitrate,Nitrite as N, 160.0312/27/2012UH05/04/2021UHNitrogen, Ammonia150.9510/12/20150.7101/20/20110.83Nitrogen, Organic158.3001/13/20110.2507/07/20222.30Nitrogen, Total Kjeldah159.0001/13/20110.8107/03/20232.80pH, lab1619.4012/08/20108.0001/11/20228.78Phosphate, total1577.5008/11/20110.0307/03/20235.28Phosphorus, total150.0907/10/20130.0307/03/20230.04SAR in Water16020.0001/13/20113.4511/02/201612.06Sulfate16020.0001/13/20110.0	meq/l mg/l mg/l μmhos mg/l mg/l mg/l mg/l mg/l
Sum of Cations         160         20.00         12/18/2013         13.10         04/11/2011         16.09           Chemical Oxygen Demand         15         800.00         01/13/2011         10.00         07/07/2022         214.17           Chloride         160         70.00         12/08/2010         10.00         01/20/2011         16.09           Conductivity, Lab         161         8.820         06/03/2019         1,320         07/05/2017         1,552           Fluoride         160         27.80         06/03/2019         14.60         09/17/2012         23.22           Hardness as CaCO3         160         18.00         10/03/2023         10.00         09/11/2013         12.71           Nitrate as N, dissolved         16         0.03         12/27/2012         UH         05/04/2021         UH           Nitrate/Nitrite as N,         16         0.03         12/27/2012         UH         05/04/2021         UH           Nitrogen, Ammonia         15         0.95         10/12/2015         0.71         01/20/2011         0.83           Nitrogen, Organic         15         8.30         01/13/2011         0.25         07/07/2022         2.30           Nitrogen, Total Kjeldah         15	meq/l mg/l µmhos mg/l mg/l mg/l mg/l mg/l
Chemical Oxygen Demand         15         800.00         01/13/2011         10.00         07/07/2022         214.17           Chloride         160         70.00         12/08/2010         10.00         01/20/2011         16.09           Conductivity, Lab         161         8,820         06/03/2019         1,320         07/05/2017         1,552           Fluoride         160         27.80         06/03/2019         14.60         09/17/2012         23.22           Hardness as CaCO3         160         18.00         10/03/2023         10.00         09/11/2013         12.71           Nitrate as N, dissolved         16         0.03         12/27/2012         UH         05/04/2021         UH           Nitrate/Nitrite as N,         16         0.03         12/27/2012         UH         05/04/2021         UH           Nitrogen, Ammonia         15         0.95         10/12/2015         0.71         01/20/2011         0.83           Nitrogen, Organic         15         8.30         01/13/2011         0.25         07/07/2022         2.30           Nitrogen, Total Kjeldahl         15         9.00         01/13/2011         0.81         07/03/2023         2.80           pH, lab         161	mg/l μmhos mg/l mg/l mg/l mg/l mg/l
Chloride         160         70.00         12/08/2010         10.00         01/20/2011         16.09           Conductivity, Lab         161         8.820         06/03/2019         1,320         07/05/2017         1,552           Fluoride         160         27.80         06/03/2019         14.60         09/17/2012         23.22           Hardness as CaCO3         160         18.00         10/03/2023         10.00         09/11/2013         12.71           Nitrate as N, dissolved         16         0.03         12/27/2012         UH         05/04/2021         UH           Nitrate/Nitrite as N,         16         0.03         12/27/2012         UH         05/04/2021         UH           Nitrite as N, dissolved         16         UH         08/11/2011         UH         05/04/2021         UH           Nitrite as N, dissolved         16         UH         08/11/2011         UH         05/04/2021         UH           Nitrogen, Ammonia         15         0.95         10/12/2015         0.71         01/20/2011         0.83           Nitrogen, Organic         15         8.30         01/13/2011         0.25         07/07/2022         2.30           Nitrogen, Total Kjeldah         15         9.	mg/l mg/l mg/l mg/l mg/l mg/l
Conductivity, Lab1618,82006/03/20191,32007/05/20171,552Fluoride16027.8006/03/201914.6009/17/201223.22Hardness as CaCO316018.0010/03/202310.0009/11/201312.71Nitrate as N, dissolved160.0312/27/2012UH05/04/2021UHNitrate/Nitrite as N,160.0312/27/2012UH05/04/2021UHNitrite as N, dissolved16UH08/11/2011UH05/04/2021UHNitrigen, Ammonia150.9510/12/20150.7101/20/20110.83Nitrogen, Organic158.3001/13/20110.2507/07/20222.30Nitrogen, Total Kjeldahl159.0001/13/20110.8107/03/20232.80pH, lab1619.4012/08/20108.0001/11/20228.78Phosphate, total1577.5008/11/20110.0807/03/20235.28Phosphorus, total150.0907/10/20130.0307/03/20235.28Sulfate16020.0001/13/20113.4511/02/201612.06Sulfate16020.0001/13/20113.4511/02/201612.06	μmhos mg/l mg/l mg/l mg/l mg/l
Fluoride16027.8006/03/201914.6009/17/201223.22Hardness as CaCO316018.0010/03/202310.0009/11/201312.71Nitrate as N, dissolved160.0312/27/2012UH05/04/2021UHNitrate/Nitrite as N, 160.0312/27/2012UH05/04/2021UHNitrite as N, dissolved16UH08/11/2011UH05/04/2021UHNitrite as N, dissolved16UH08/11/2011UH05/04/2021UHNitrogen, Ammonia150.9510/12/20150.7101/20/20110.83Nitrogen, Organic158.3001/13/20110.2507/07/20222.30Nitrogen, Total Kjeldahl159.0001/13/20110.8107/03/20232.80pH, lab1619.4012/08/20108.0001/11/20228.78Phosphate, total1577.5008/11/20110.0807/03/20235.28Phosphorus, total150.0907/10/20130.0307/03/20230.04SAR in Water16056.6012/18/201337.0003/07/202244.28Sulfate16020.0001/13/20113.4511/02/201612.06Sulfide150.1001/20/20110.0307/10/20130.05	mg/l mg/l mg/l mg/l mg/l
Hardness as CaCO316018.0010/03/202310.0009/11/201312.71Nitrate as N, dissolved160.0312/27/2012UH05/04/2021UHNitrate/Nitrite as N, 160.0312/27/2012UH05/04/2021UHNitrite as N, dissolved16UH08/11/2011UH05/04/2021UHNitrogen, Ammonia150.9510/12/20150.7101/20/20110.83Nitrogen, Organic158.3001/13/20110.2507/07/20222.30Nitrogen, Total Kjeldahl159.0001/13/20110.8107/03/20232.80pH, lab1619.4012/08/20108.0001/11/20228.78Phosphate, total1577.5008/11/20110.0807/03/20235.28Phosphorus, total150.0907/10/20130.0307/03/20230.04SAR in Water16056.6012/18/201337.0003/07/202244.28Sulfate16020.0001/13/20113.4511/02/201612.06Sulfide150.1001/20/20110.0307/10/20130.05	mg/l mg/l mg/l mg/l
Nitrate as N, dissolved         16         0.03         12/27/2012         UH         05/04/2021         UH           Nitrate/Nitrite as N, 16         0.03         12/27/2012         UH         05/04/2021         UH           Nitrate/Nitrite as N, dissolved         16         UH         08/11/2011         UH         05/04/2021         UH           Nitrogen, Ammonia         15         0.95         10/12/2015         0.71         01/20/2011         0.83           Nitrogen, Organic         15         8.30         01/13/2011         0.25         07/07/2022         2.30           Nitrogen, Total Kjeldahl         15         9.00         01/13/2011         0.81         07/03/2023         2.80           pH, lab         161         9.40         12/08/2010         8.00         01/11/2022         8.78           Phosphate, total         15         77.50         08/11/2011         0.08         07/03/2023         5.28           Phosphorus, total         15         0.09         07/10/2013         0.03         07/03/2023         5.28           Phosphorus, total         15         0.09         07/10/2013         0.03         07/03/2023         0.04           Sulfate         160         26.60         12/	mg/l mg/l mg/l
Nitrate/Nitrite as N,         16         0.03         12/27/2012         UH         05/04/2021         UH           Nitrite as N, dissolved         16         UH         08/11/2011         UH         05/04/2021         UH           Nitrogen, Ammonia         15         0.95         10/12/2015         0.71         01/20/2011         0.83           Nitrogen, Organic         15         8.30         01/13/2011         0.25         07/07/2022         2.30           Nitrogen, Total Kjeldahl         15         9.00         01/13/2011         0.81         07/03/2023         2.80           pH, lab         161         9.40         12/08/2010         8.00         01/11/2022         8.78           Phosphate, total         15         77.50         08/11/2011         0.08         07/03/2023         5.28           Phosphorus, total         15         0.09         07/10/2013         0.03         07/03/2023         5.28           Phosphorus, total         15         0.09         07/10/2013         0.03         07/03/2023         0.04           SAR in Water         160         56.60         12/18/2013         37.00         03/07/2022         44.28           Sulfate         160         20.00         <	mg/l mg/l mg/l
Nitrite as N, dissolved         16         UH         08/11/2011         UH         05/04/2021         UH           Nitrogen, Ammonia         15         0.95         10/12/2015         0.71         01/20/2011         0.83           Nitrogen, Organic         15         8.30         01/13/2011         0.25         07/07/2022         2.30           Nitrogen, Total Kjeldahl         15         9.00         01/13/2011         0.81         07/03/2023         2.80           pH, lab         161         9.40         12/08/2010         8.00         01/11/2022         8.78           Phosphate, total         15         77.50         08/11/2011         0.08         07/03/2023         5.28           Phosphate, total         15         0.09         07/10/2013         0.03         07/03/2023         0.04           SAR in Water         160         56.60         12/18/2013         37.00         03/07/2022         44.28           Sulfate         160         20.00         01/13/2011         3.45         11/02/2016         12.06	mg/l mg/l
Nitrogen, Ammonia         15         0.95         10/12/2015         0.71         01/20/2011         0.83           Nitrogen, Organic         15         8.30         01/13/2011         0.25         07/07/2022         2.30           Nitrogen, Total Kjeldahl         15         9.00         01/13/2011         0.81         07/03/2023         2.80           pH, lab         161         9.40         12/08/2010         8.00         01/11/2022         8.78           Phosphate, total         15         77.50         08/11/2011         0.08         07/03/2023         5.28           Phosphorus, total         15         0.09         07/10/2013         0.03         07/03/2023         0.04           SAR in Water         160         56.60         12/18/2013         37.00         03/07/2022         44.28           Sulfate         160         20.00         01/13/2011         3.45         11/02/2016         12.06           Sulfate         15         0.10         01/20/2011         0.03         07/10/2013         0.05	mg/l
Nitrogen, Organic         15         8.30         01/13/2011         0.25         07/07/2022         2.30           Nitrogen, Total Kjeldahl         15         9.00         01/13/2011         0.81         07/03/2023         2.80           pH, lab         161         9.40         12/08/2010         8.00         01/11/2022         8.78           Phosphate, total         15         77.50         08/11/2011         0.08         07/03/2023         5.28           Phosphorus, total         15         0.09         07/10/2013         0.03         07/03/2023         0.04           SAR in Water         160         56.60         12/18/2013         37.00         03/07/2022         44.28           Sulfate         160         20.00         01/13/2011         3.45         11/02/2016         12.06           Sulfide         15         0.10         01/20/2011         0.03         07/10/2013         0.05	
Nitrogen, Total Kjeldahi         15         9.00         01/13/2011         0.81         07/03/2023         2.80           pH, lab         161         9.40         12/08/2010         8.00         01/11/2022         8.78           Phosphate, total         15         77.50         08/11/2011         0.08         07/03/2023         5.28           Phosphorus, total         15         0.09         07/10/2013         0.03         07/03/2023         0.04           SAR in Water         160         56.60         12/18/2013         37.00         03/07/2022         44.28           Sulfate         160         20.00         01/13/2011         3.45         11/02/2016         12.06           Sulfide         15         0.10         01/20/2011         0.03         07/10/2013         0.05	mg/i
pH, lab         161         9.40         12/08/2010         8.00         01/11/2022         8.78           Phosphate, total         15         77.50         08/11/2011         0.08         07/03/2023         5.28           Phosphorus, total         15         0.09         07/10/2013         0.03         07/03/2023         0.04           SAR in Water         160         56.60         12/18/2013         37.00         03/07/2022         44.28           Sulfate         160         20.00         01/13/2011         3.45         11/02/2016         12.06           Sulfide         15         0.10         01/20/2011         0.03         07/10/2013         0.05	mg/l
Phosphate, total         15         77.50         08/11/2011         0.08         07/03/2023         5.28           Phosphorus, total         15         0.09         07/10/2013         0.03         07/03/2023         0.04           SAR in Water         160         56.60         12/18/2013         37.00         03/07/2022         44.28           Sulfate         160         20.00         01/13/2011         3.45         11/02/2016         12.06           Sulfide         15         0.10         01/20/2011         0.03         07/10/2013         0.05	units
Phosphorus, total         15         0.09         07/10/2013         0.03         07/03/2023         0.04           SAR in Water         160         56.60         12/18/2013         37.00         03/07/2022         44.28           Sulfate         160         20.00         01/13/2011         3.45         11/02/2016         12.06           Sulfide         15         0.10         01/20/2011         0.03         07/10/2013         0.05	mg/l
SAR in Water         160         56.60         12/18/2013         37.00         03/07/2022         44.28           Sulfate         160         20.00         01/13/2011         3.45         11/02/2016         12.06           Sulfate         15         0.10         01/20/2011         0.03         07/10/2013         0.05	mg/l
Sulfate         160         20.00         01/13/2011         3.45         11/02/2016         12.06           Sulfide         15         0.10         01/20/2011         0.03         07/10/2013         0.05	none
Sulfide 15 0.10 01/20/2011 0.03 07/10/2013 0.05	mg/l
	mg/l
	mg/l
Conductivity, Field 158 2,413 09/17/2012 1,232 06/05/2017 1,477	μmhos
pH, Field 156 9.58 03/05/2012 6.60 11/04/2019 8.36	units
Temperature (°C), Field 158 23.00 09/05/2017 4.62 11/22/2011 11.91	(°C)
Water Level, Field 157 517.10 08/07/2017 493.95 10/12/2015 506.97	Ft.
Parameters No. of High Data Low Data Avarage	11
Metals Samples High Date Low Date Average	Units
Aluminum, dissolved 16 0.04 01/13/2011 U 07/10/2013 U	mg/l
Arsenic, dissolved 16 0.06 01/13/2011 0.00 04/12/2016 0.01	mg/l
Barium, dissolved 16 0.39 01/13/2011 0.31 07/05/2017 0.34	mg/l
Beryllium, dissolved 16 0.00 11/10/2014 U 07/10/2013 U	mg/l
Boron, dissolved 160 0.91 12/18/2013 0.62 12/08/2010 0.72	mg/l
Cadmium, dissolved 16 U 08/11/2011 U 07/10/2013 U	mg/l
Calcium, dissolved 160 4.10 03/07/2022 2.00 09/11/2013 2.44	mg/l
Chromium, dissolved 16 0.01 12/31/2018 U 07/10/2013 U	mg/l
Copper, dissolved 16 0.04 05/06/2019 U 07/10/2013 U	mg/l
Iron, dissolved 16 0.19 12/31/2018 0.02 12/04/2012 0.07	mg/l
Lead, dissolved 16 0.05 12/04/2012 U 07/10/2013 U	mg/l
Lithium, dissolved 16 0.13 01/13/2011 0.11 07/05/2017 0.12	mg/l
Magnesium, dissolved 160 2.45 10/03/2023 1.30 12/08/2010 1.60	mg/l
Manganese, dissolved 16 0.01 01/13/2011 U 07/10/2013 U	mg/l
Mercury, dissolved 17 U 08/11/2011 U 07/10/2013 U	mg/l
Molybdenum, dissolved 16 0.06 01/13/2011 U 07/10/2013 U	mg/l
Nickel, dissolved 16 U 08/11/2011 U 07/10/2013 U	mg/l
Potassium, dissolved 160 2.10 12/08/2010 0.60 11/02/2016 0.95	mg/l
Selenium, dissolved 16 U 08/11/2011 U 07/10/2013 U	IIIQ/I
	mg/l
Silica, dissolved 160 17.80 08/03/2021 1.10 12/08/2010 15.56	
	mg/l
Silica, dissolved16017.8008/03/20211.1012/08/201015.56Sodium, dissolved160439.0012/18/2013292.0004/11/2011357.40	mg/l mg/l mg/l
Silica, dissolved         160         17.80         08/03/2021         1.10         12/08/2010         15.56           Sodium, dissolved         160         439.00         12/18/2013         292.00         04/11/2011         357.40	mg/l mg/l

#### Appx. Table A-17: BG-6 Monthly B-Groove Aquifer

DAUB & ASSOCIATES, INC. 



ParametersNo. of SamplesHighDateLowDateAverageBicarbonate as CaCO31091206/02/202050112/15/2015727Carbonate as CaCO31030712/15/20152406/12/2023165Total Alkalinity as CaCO31099206/02/202080812/15/2015891Bromide100.1410/18/20140.1309/28/20170.13Cation-Anion Balance102.4006/25/2019-4.8006/02/2020-0.92Sum of Anions1024.0010/18/201420.0006/25/201921.90Sum of Cations1024.0010/18/201419.0006/03/202221.50Chemical Oxygen Demand1030.0006/25/20191406/12/2023100Conductivity, Lab102.34010/18/201476106/12/20231.906Fluoride1023.7006/09/202118.2012/15/201520.56Hardness as CaCO31013.0010/18/201411.0004/05/201612.09	Units mg/l mg/l mg/l mg/l % meq/l meq/l mg/l mg/l umhos
Bicarbonate as CaCO3         10         912         06/02/2020         501         12/15/2015         727           Carbonate as CaCO3         10         307         12/15/2015         24         06/12/2023         165           Total Alkalinity as CaCO3         10         992         06/02/2020         808         12/15/2015         891           Bromide         10         0.14         10/18/2014         0.13         09/28/2017         0.13           Cation-Anion Balance         10         2.40         06/25/2019         -4.80         06/02/2020         -0.92           Sum of Anions         10         24.00         10/18/2014         20.00         06/25/2019         21.90           Sum of Cations         10         24.00         10/18/2014         19.00         06/03/2022         21.50           Chemical Oxygen Demand         10         30.00         06/25/2019         10.00         06/02/2020         21.00           Chloride         10         201         12/15/2015         14         06/12/2023         100           Conductivity, Lab         10         2,340         10/18/2014         761         06/12/2023         1,906           Fluoride         10         23.70         06	mg/l mg/l % meq/l meq/l mg/l mg/l
Carbonate as CaCO31030712/15/20152406/12/2023165Total Alkalinity as CaCO31099206/02/202080812/15/2015891Bromide100.1410/18/20140.1309/28/20170.13Cation-Anion Balance102.4006/25/2019-4.8006/02/2020-0.92Sum of Anions1024.0010/18/201420.0006/25/201921.90Sum of Cations1024.0010/18/201419.0006/03/202221.50Chemical Oxygen Demand1030.0006/25/201910.0006/02/202021.00Chloride1020112/15/20151406/12/2023100Conductivity, Lab102,34010/18/201476106/12/20231,906Fluoride1023.7006/09/202118.2012/15/201520.56	mg/l mg/l % meq/l meq/l mg/l mg/l
Total Alkalinity as CaCO31099206/02/202080812/15/2015891Bromide100.1410/18/20140.1309/28/20170.13Cation-Anion Balance102.4006/25/2019-4.8006/02/2020-0.92Sum of Anions1024.0010/18/201420.0006/25/201921.90Sum of Cations1024.0010/18/201419.0006/03/202221.50Chemical Oxygen Demand1030.0006/25/201910.0006/02/202021.00Chloride1020112/15/20151406/12/2023100Conductivity, Lab102.34010/18/201476106/12/20231.906Fluoride1023.7006/09/202118.2012/15/201520.56	mg/l mg/l % meq/l meq/l mg/l
Bromide         10         0.14         10/18/2014         0.13         09/28/2017         0.13           Cation-Anion Balance         10         2.40         06/25/2019         -4.80         06/02/2020         -0.92           Sum of Anions         10         24.00         10/18/2014         20.00         06/25/2019         21.90           Sum of Cations         10         24.00         10/18/2014         19.00         06/03/2022         21.50           Chemical Oxygen Demand         10         30.00         06/25/2019         10.00         06/02/2020         21.00           Chloride         10         201         12/15/2015         14         06/12/2023         100           Conductivity, Lab         10         2.340         10/18/2014         761         06/12/2023         1.906           Fluoride         10         23.70         06/09/2021         18.20         12/15/2015         20.56	mg/l % meg/l mg/l mg/l
Cation-Anion Balance         10         2.40         06/25/2019         -4.80         06/02/2020         -0.92           Sum of Anions         10         24.00         10/18/2014         20.00         06/25/2019         21.90           Sum of Cations         10         24.00         10/18/2014         19.00         06/03/2022         21.50           Chemical Oxygen Demand         10         30.00         06/25/2019         10.00         06/02/2020         21.00           Chloride         10         201         12/15/2015         14         06/12/2023         100           Conductivity, Lab         10         2.340         10/18/2014         761         06/12/2023         1,906           Fluoride         10         23.70         06/09/2021         18.20         12/15/2015         20.56	% meq/l meq/l mg/l mg/l
Sum of Anions         10         24.00         10/18/2014         20.00         06/25/2019         21.90           Sum of Cations         10         24.00         10/18/2014         19.00         06/03/2022         21.50           Chemical Oxygen Demand         10         30.00         06/25/2019         10.00         06/02/2020         21.00           Chloride         10         201         12/15/2015         14         06/12/2023         100           Conductivity, Lab         10         2,340         10/18/2014         761         06/12/2023         1,906           Fluoride         10         23.70         06/09/2021         18.20         12/15/2015         20.56	meq/l meq/l mg/l mg/l
Sum of Cations1024.0010/18/201419.0006/03/202221.50Chemical Oxygen Demand1030.0006/25/201910.0006/02/202021.00Chloride1020112/15/20151406/12/2023100Conductivity, Lab102,34010/18/201476106/12/20231,906Fluoride1023.7006/09/202118.2012/15/201520.56	meq/l mg/l mg/l
Chemical Oxygen Demand1030.0006/25/201910.0006/02/202021.00Chloride1020112/15/20151406/12/2023100Conductivity, Lab102,34010/18/201476106/12/20231,906Fluoride1023.7006/09/202118.2012/15/201520.56	mg/l mg/l
Chloride         10         201         12/15/2015         14         06/12/2023         100           Conductivity, Lab         10         2,340         10/18/2014         761         06/12/2023         1,906           Fluoride         10         23.70         06/09/2021         18.20         12/15/2015         20.56	mg/l
Conductivity, Lab102,34010/18/201476106/12/20231,906Fluoride1023.7006/09/202118.2012/15/201520.56	
Fluoride 10 23.70 06/09/2021 18.20 12/15/2015 20.56	
	mg/l
	mg/l
Nitrate as N, dissolved         10         0.02         10/18/2014         UH         06/25/2019         UH	mg/l
Nitrate/Nitrite as N, 10 0.02 10/18/2014 UH 06/25/2019 UH	mg/l
Nitrite as N, dissolved         10         0.02         10/16/2014         011         00/23/2013         011           Nitrite as N, dissolved         10         0.01         12/15/2015         0.00         10/18/2014         0.01	mg/l
Nitrogen, Ammonia 10 1.22 10/18/2014 0.80 06/12/2023 1.00	mg/l
Nitrogen, Organic 10 1.20 06/20/2018 0.20 10/18/2014 0.58	mg/l
Nitrogen, Total Kjeldahl 10 2.00 09/28/2017 0.85 06/03/2022 1.43	mg/l
pH, lab 10 9.60 12/15/2015 8.20 06/12/2023 8.98	units
Phosphate, total 10 0.40 12/15/2015 0.06 06/09/2021 0.15	mg/l
Phosphorus, total 10 0.13 12/15/2015 0.00 06/09/2021 0.15 Phosphorus, total 10 0.13 12/15/2015 0.02 06/09/2021 0.05	mg/l
SAR in Water 10 66 04/05/2016 53.00 06/09/2021 60	
Sulfate 10 40 10/18/2014 5.58 06/20/2018 16	
Sulfide 10 0.15 06/25/2019 0.02 06/02/2020 0.08	none
Total Dissolved Solids         10         1,350         10/18/2014         1,050         06/03/2022         1,168	mg/l
Conductivity, Field 11 2,575 12/15/2015 1,594 10/25/2018 1,972	mg/l mg/l
	mg/l mg/l mg/l
pH Eield 11   9.40   06/20/2018   8.00   06/02/2020   8.68	mg/l mg/l mg/l µmhos
pH, Field 11 9.40 06/20/2018 8.00 06/02/2020 8.68	mg/l mg/l mg/l µmhos units
Temperature (°C), Field 11 22.50 10/18/2014 11.49 10/25/2018 14.80	mg/l mg/l μmhos units (°C)
	mg/l mg/l mg/l µmhos units
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53	mg/l mg/l μmhos units (°C) Ft.
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of         High         Date         Low         Date         Average	mg/l mg/l μmhos units (°C)
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Samples         High         Date         Low         Date         Average	mg/l mg/l μmhos units (°C) Ft.
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Samples         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07	mg/l mg/l μmhos units (°C) Ft. Units mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Samples         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01	mg/l mg/l μmhos units (°C) Ft. Units mg/l mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Samples         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22	mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l           mg/l           mg/l           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Samples         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         U         10/18/2014         U         06/02/2020         U	mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l           mg/l           mg/l           mg/l           mg/l           mg/l           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Samples         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Boron, dissolved         10         0.84         06/12/2023         0.56         12/15/2015         0.71	mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l           mg/l           mg/l           mg/l           mg/l           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Samples         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Boron, dissolved         10         0.84         06/12/2023         0.56         12/15/2015         0.71           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U	mg/l           mg/l           μmhos           units           (°C)           Ft.             Units           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Samples         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Boron, dissolved         10         0.84         06/12/2023         0.56         12/15/2015         0.71           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadmium, dissolved         10         3.60         10/18/2014         1.40         06/20/2018         2.26	mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l           mg/l           mg/l           mg/l           mg/l           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Samples         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Boron, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Calcium, dissolved         10         U         10/18/	mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Metals         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Boron, dissolved         10         0.84         06/12/2023         0.56         12/15/2015         0.71           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadmium, dissolved         10         3.60         10/18/2014         U         06/02/2018         2.26           Chromium, dissolved         10         U	mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Samples         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Boron, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Chromium, dissolved         10         U         10/18	mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Metals         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Boron, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Chromium, dissolved         10         U         10/18/	mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Metals         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         0.84         06/12/2023         0.56         12/15/2015         0.71           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Chromium, dissolved         10         U	mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Samples         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         0.40         06/09/2023         0.56         12/15/2015         0.21           Boron, dissolved         10         0.84         06/12/2023         0.56         12/15/2015         0.71           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Chromium, dissolved         10         3.60         10/18/2014         U         06/02/2020         U           Copper, dissolved         10         U <td>mg/l           mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l           mg/l</td>	mg/l           mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Metals         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Boron, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Chromium, dissolved         10         U         10/18/	mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Metals         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Boron, dissolved         10         U         10/18/2014         U         06/02/2020         U           Calcium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Calcium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Copper, dissolved         10         U         10/18/20	mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Metals         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Boron, dissolved         10         U         10/18/2014         U         06/02/2020         U           Calcium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Chromium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Copper, dissolved         10         U         10/18/2	mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Metals         Samples         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Copper, dissolved         10         U<	mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Metals         Samples         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Copper, dissolved         10         U<	mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Metals         Samples         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Calcium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Calcium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Chromium, dissolved         10 <t< td=""><td>mg/l           mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l           mg/l</td></t<>	mg/l           mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Metals         Samples         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         0.84         06/12/2023         0.56         12/15/2015         0.71           Cadmiun, dissolved         10         U         10/18/2014         U         06/02/2020         U           Chromium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadmiun, dissolved         10         U         10/18/2014         U         06/02/2020         U           Copper, dissolved         10	mg/l           mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Metals         Samples         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         0.84         06/12/2023         0.56         12/15/2015         0.71           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadrium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Cadrium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Copper, dissolved         10	mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l           mg/l
Temperature (°C), Field         11         22.50         10/18/2014         11.49         10/25/2018         14.80           Water Level, Field         11         480.10         09/28/2017         468.00         06/12/2023         475.53           Parameters         No. of Metals         Samples         High         Date         Low         Date         Average           Aluminum, dissolved         10         0.08         10/18/2014         0.04         04/05/2016         0.07           Arsenic, dissolved         10         0.03         10/18/2014         0.00         09/28/2017         0.01           Barium, dissolved         10         0.40         06/09/2021         0.02         12/15/2015         0.22           Beryllium, dissolved         10         0.84         06/12/2023         0.56         12/15/2015         0.71           Cadmium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Calcium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Calcium, dissolved         10         U         10/18/2014         U         06/02/2020         U           Copper, dissolved         10	mg/l           mg/l           μmhos           units           (°C)           Ft.           Units           mg/l           mg/l

#### Appx. Table A-18: BG-7 Annual B-Groove Aquifer

DAUB & ASSOCIATES, INC. 201 H Salar WWWWWWWWWWWWW



Parameters	No. of		<b>.</b>		<b>.</b>		
Wet Chemistry	Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	12	599	08/04/2021	403	08/15/2023	499	mg/l
Carbonate as CaCO3	12	323	09/03/2021	192	09/10/2021	254	mg/l
Total Alkalinity as CaCO3	12	802	08/04/2021	709	06/03/2022	754	mg/l
Bromide	3	U	08/04/2021	U	09/10/2021	U	mg/l
Cation-Anion Balance		0.00	09/08/2022	-50.00	11/27/2023	-6.92	%
Sum of Anions		45.00	11/27/2023	16.00	06/03/2022	19.33	meq/l
Sum of Cations		17.00	08/04/2021	15.00	06/03/2022	15.92	meq/l
Chemical Oxygen Demand	3	247.00	08/04/2021	16.00	09/10/2021	98.67	mg/l
Chloride		1,070	11/27/2023	23	08/15/2023	116	mg/l
Conductivity, Lab		1,610	09/03/2021	1,460	11/27/2023	1,518	µmhos
Fluoride		22.70	09/08/2022	16.70	08/15/2023	20.47	mg/l
Hardness as CaCO3		88.00	08/04/2021	14.00	06/03/2022	22.17	mg/l
Nitrate as N, dissolved		UH	08/04/2021	UH	09/10/2021	UH	mg/l
Nitrate/Nitrite as N.		UH	08/04/2021	UH	09/10/2021	UH	mg/l
Nitrite as N, dissolved	3	UH	08/04/2021	UH	09/10/2021	UH	mg/l
Nitrogen, Ammonia		1.24	09/03/2021	0.82	08/04/2021	1.07	mg/l
Nitrogen, Organic		0.93	08/04/2021	0.20	09/10/2021	0.48	mg/l
Nitrogen, Total Kjeldahl	3	1.75	08/04/2021	1.38	09/10/2021	1.55	mg/l
pH, lab		9.70	09/03/2021	9.20	08/04/2021	9.42	units
Phosphate, total	3	6.30	08/04/2021	1.01	09/10/2021	3.34	mg/l
Phosphorus, total	3	2.02	08/04/2021	0.33	09/10/2021	1.08	mg/l
SAR in Water	12	41	03/14/2022	16.00	08/04/2021	36	none
Sulfate	12	U	08/04/2021	U	09/10/2021	U	mg/l
Sulfide	3	0.09	09/10/2021	0.07	09/03/2021	0.08	mg/l
Total Dissolved Solids		1,880	11/27/2023	824	08/15/2023	960	mg/l
Conductivity, Field		1,620	07/23/2021	1,383	08/15/2023	1,467	µmhos
pH, Field	16	9.53	11/27/2023	7.04	07/23/2021	8.86	units
		9.53 25.50	11/27/2023 07/23/2021	<u>7.04</u> 11.11	07/23/2021	8.86 16.96	units (°C)
pH, Field	16						
pH, Field Temperature (°C), Field	16 11	25.50	07/23/2021	11.11	11/27/2023	16.96	(°C)
pH, Field Temperature (°C), Field Water Level, Field Parameters	16 11 <b>No. of</b>	25.50 541.50	07/23/2021 11/27/2023	11.11 441.60	11/27/2023 03/14/2022	16.96 458.29	(°C) Ft.
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals	16 11 No. of Samples	25.50 541.50 <b>High</b>	07/23/2021 11/27/2023 Date	11.11 441.60 <b>Low</b>	11/27/2023 03/14/2022 Date	16.96 458.29 Average	(°C) Ft. Units
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved	16 11 <b>No. of</b> Samples 3	25.50 541.50 <b>High</b> U	07/23/2021 11/27/2023 <b>Date</b> 08/04/2021	11.11 441.60 Low	11/27/2023 03/14/2022 Date 09/10/2021	16.96 458.29 Average	(°C) Ft. Units mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	16 11 <b>No. of</b> Samples 3 3	25.50 541.50 High U 0.0114	07/23/2021 11/27/2023 <b>Date</b> 08/04/2021 08/04/2021	11.11 441.60 Low U 0.0011	11/27/2023 03/14/2022 Date 09/10/2021 09/10/2021	16.96 458.29 Average U 0.0047	(°C) Ft. Units mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	16 11 <b>No. of</b> <u>Samples</u> 3 3 3 3	25.50 541.50 High U 0.0114 0.40	07/23/2021 11/27/2023 <b>Date</b> 08/04/2021 08/04/2021 09/10/2021	11.11 441.60 Low U 0.0011 0.07	11/27/2023 03/14/2022 Date 09/10/2021 09/10/2021 08/04/2021	16.96 458.29 Average U 0.0047 0.24	(°C) Ft. Units mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	16 11 <b>No. of</b> <u>Samples</u> 3 3 3 3 3 3	25.50 541.50 High U 0.0114 0.40 U	07/23/2021 11/27/2023 <b>Date</b> 08/04/2021 08/04/2021 09/10/2021 08/04/2021	11.11 441.60 Low U 0.0011 0.07 U	11/27/2023 03/14/2022 Date 09/10/2021 09/10/2021 08/04/2021 09/10/2021	16.96 458.29 Average U 0.0047 0.24 U	(°C) Ft. Units mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	16 11 <b>No. of</b> <u>Samples</u> 3 3 3 3 3 12	25.50 541.50 High U 0.0114 0.40 U 0.82	07/23/2021 11/27/2023 <b>Date</b> 08/04/2021 08/04/2021 09/10/2021 08/04/2021 08/04/2021	11.11 441.60 Low U 0.0011 0.07 U 0.71	11/27/2023 03/14/2022 Date 09/10/2021 09/10/2021 08/04/2021 09/10/2021 09/03/2021	16.96 458.29 Average U 0.0047 0.24 U 0.74	(°C) Ft. Units mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	16 11 <b>No. of</b> <u>Samples</u> 3 3 3 3 3 12 3	25.50 541.50 High U 0.0114 0.40 U 0.82 U	07/23/2021 11/27/2023 <b>Date</b> 08/04/2021 08/04/2021 09/10/2021 08/04/2021 08/04/2021 08/04/2021	11.11 441.60 Low U 0.0011 0.07 U 0.71 U	11/27/2023 03/14/2022 Date 09/10/2021 09/10/2021 08/04/2021 09/10/2021 09/03/2021 09/10/2021	16.96 458.29 <b>Average</b> U 0.0047 0.24 U 0.74 U	(°C) Ft. Units mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved	16 11 <b>No. of</b> <b>Samples</b> 3 3 3 3 3 12 3 12 3 12	25.50 541.50 High U 0.0114 0.40 U 0.82 U 0.82 U 17.40	07/23/2021 11/27/2023 <b>Date</b> 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021	11.11 441.60 Low U 0.0011 0.07 U 0.71 U 2.44	11/27/2023 03/14/2022 Date 09/10/2021 09/10/2021 08/04/2021 09/10/2021 09/03/2021 09/10/2021 02/13/2023	16.96 458.29 <b>Average</b> U 0.0047 0.24 U 0.74 U 4.14	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	16 11 <b>No. of</b> <b>Samples</b> 3 3 3 3 3 12 3 12 3 12 3	25.50 541.50 High U 0.0114 0.40 U 0.82 U 0.82 U 17.40 U	07/23/2021 11/27/2023 <b>Date</b> 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021	11.11 441.60 <b>Low</b> U 0.0011 0.07 U 0.71 U 2.44 U	11/27/2023 03/14/2022 Date 09/10/2021 09/10/2021 08/04/2021 09/10/2021 09/03/2021 09/10/2021 02/13/2023 09/10/2021	16.96 458.29 <b>Average</b> U 0.0047 0.24 U 0.74 U 4.14 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	16 11 <b>No. of</b> <b>Samples</b> 3 3 3 3 3 3 12 3 12 3 12 3 3 3 3	25.50 541.50 High U 0.0114 0.40 U 0.82 U 0.82 U 17.40 U U	07/23/2021 11/27/2023 <b>Date</b> 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021	11.11 441.60 <b>Low</b> U 0.0011 0.07 U 0.71 U 2.44 U U U	11/27/2023 03/14/2022 Date 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 02/13/2023 09/10/2021 09/10/2021	16.96 458.29 <b>Average</b> U 0.0047 0.24 U 0.74 U 4.14 U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	16 11 <b>No. of</b> <b>Samples</b> 3 3 3 3 3 3 12 3 12 3 12 3 3 3 3 3 3 3	25.50 541.50 High U 0.0114 0.40 U 0.82 U 17.40 U U 1.06	07/23/2021 11/27/2023 <b>Date</b> 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021	11.11 441.60 <b>Low</b> U 0.0011 0.07 U 0.71 U 2.44 U U U 0.45	11/27/2023 03/14/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/03/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021	16.96 458.29 <b>Average</b> U 0.0047 0.24 U 0.74 U 4.14 U U U 0.66	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	16 11 <b>No. of</b> <b>Samples</b> 3 3 3 3 3 12 3 12 3 12 3 3 12 3 3 3 3 3	25.50 541.50 High U 0.0114 0.40 U 0.82 U 17.40 U 17.40 U U 1.06 U	07/23/2021 11/27/2023 <b>Date</b> 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 09/03/2021 08/04/2021	11.11 441.60 <b>Low</b> U 0.0011 0.07 U 0.71 U 2.44 U U U 0.45 U	11/27/2023 03/14/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021	16.96 458.29 <b>Average</b> U 0.0047 0.24 U 0.74 U 4.14 U U 0.66 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	16 11 <b>No. of</b> <b>Samples</b> 3 3 3 3 3 12 3 12 3 12 3 3 3 3 3 3 3 3	25.50 541.50 High U 0.0114 0.40 U 0.82 U 17.40 U 17.40 U U 1.06 U 0.26	07/23/2021 11/27/2023 Date 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021	11.11 441.60 <b>Low</b> U 0.0011 0.07 U 0.71 U 2.44 U U U 0.45 U 0.23	11/27/2023 03/14/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021	16.96 458.29 <b>Average</b> U 0.0047 0.24 U 0.74 U 4.14 U U 0.66 U 0.24	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	16 11 <b>No. of</b> <b>Samples</b> 3 3 3 3 3 12 3 12 3 3 3 3 3 3 3 3 3 3 12	25.50 541.50 High U 0.0114 0.40 U 0.82 U 17.40 U 17.40 U 1.06 U 0.26 10.80	07/23/2021 11/27/2023 <b>Date</b> 08/04/2021 09/10/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021	11.11 441.60 <b>Low</b> U 0.0011 0.07 U 0.71 U 2.44 U U 0.45 U 0.45 U 0.23 1.81	11/27/2023 03/14/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021	16.96 458.29 <b>Average</b> U 0.0047 0.24 U 0.74 U 4.14 U U 0.66 U 0.24 2.85	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	16 11 <b>No. of</b> <b>Samples</b> 3 3 3 3 3 12 3 12 3 3 3 3 3 3 3 3 3 3 3	25.50 541.50 High U 0.0114 0.40 U 0.82 U 17.40 U 17.40 U 1.06 U 0.26 10.80 0.03	07/23/2021 11/27/2023 <b>Date</b> 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021	11.11 441.60 <b>Low</b> U 0.0011 0.07 U 0.71 U 2.44 U U 0.45 U 0.23 1.81 0.02	11/27/2023 03/14/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021	16.96 458.29 <b>Average</b> U 0.0047 0.24 U 0.74 U 4.14 U U 0.66 U 0.24 2.85 0.02	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved	16 11 <b>No. of</b> <b>Samples</b> 3 3 3 3 12 3 12 3 3 3 3 3 3 3 3 3 3 3 3	25.50 541.50 High U 0.0114 0.40 U 0.82 U 17.40 U 17.40 U 1.06 U 0.26 10.80 0.03 U	07/23/2021 11/27/2023 <b>Date</b> 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021	11.11 441.60 <b>Low</b> U 0.0011 0.07 U 0.71 U 2.44 U U 0.45 U 0.45 U 0.23 1.81 0.02 U	11/27/2023 03/14/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021	16.96 458.29 <b>Average</b> U 0.0047 0.24 U 0.74 U 4.14 U U 0.66 U 0.24 2.85 0.02 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved	16 11 No. of Samples 3 3 3 3 12 3 12 3 3 3 3 3 3 3 3 3 3 3 3	25.50 541.50 High U 0.0114 0.40 U 0.82 U 17.40 U 17.40 U 1.06 U 0.26 10.80 0.03 U 0.02	07/23/2021 11/27/2023 <b>Date</b> 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021	11.11 441.60 <b>Low</b> U 0.0011 0.07 U 0.71 U 2.44 U U 0.45 U 0.23 1.81 0.02 U 0.02	11/27/2023 03/14/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021	16.96 458.29 <b>Average</b> U 0.0047 0.24 U 0.74 U 4.14 U U 0.66 U 0.24 2.85 0.02 U 0.02	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved	16 11 No. of Samples 3 3 3 3 12 3 12 3 3 3 3 3 3 3 3 3 3 3 3	25.50 541.50 High U 0.0114 0.40 U 0.82 U 17.40 U 17.40 U 1.06 U 0.26 10.80 0.03 U 0.02 U U	07/23/2021 11/27/2023 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021	11.11 441.60 <b>Low</b> U 0.0011 0.07 U 0.71 U 2.44 U U 0.45 U 0.45 U 0.23 1.81 0.02 U 0.02 U 0.02 U	11/27/2023 03/14/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021	16.96 458.29 <b>Average</b> U 0.0047 0.24 U 0.74 U 4.14 U 0.66 U 0.66 U 0.24 2.85 0.02 U 0.02 U 0.02 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	16 11 No. of Samples 3 3 3 3 12 3 12 3 3 3 3 3 3 3 3 3 3 3 3	25.50 541.50 High U 0.0114 0.40 U 0.82 U 17.40 U 17.40 U 1.06 U 0.26 10.80 0.03 U 0.02 U 0.02 U 8.03	07/23/2021 11/27/2023 08/04/2021 08/04/2021 09/10/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021	11.11 441.60 <b>Low</b> U 0.0011 0.07 U 0.71 U 2.44 U U 0.45 U 0.23 1.81 0.02 U 0.02 U 0.02 U 0.02 U 3.96	11/27/2023 03/14/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021	16.96 458.29 <b>Average</b> U 0.0047 0.24 U 0.74 U 4.14 U U 0.66 U 0.24 2.85 0.02 U 0.24 2.85 0.02 U 0.02 U 0.02 U 0.02 U 0.02	(°C) Ft. Units mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	16 11 No. of Samples 3 3 3 3 12 3 12 3 3 3 3 3 3 3 3 3 3 3 3	25.50 541.50 High U 0.0114 0.40 U 0.82 U 17.40 U 17.40 U 1.06 U 0.26 10.80 0.03 U 0.02 U 0.02 U 8.03 0.01	07/23/2021 11/27/2023 08/04/2021 08/04/2021 09/10/2021 08/04/2021	11.11 441.60 U 0.0011 0.07 U 0.71 U 2.44 U U 0.45 U 0.23 1.81 0.02 U 0.23 1.81 0.02 U 0.02 U 0.02 U 0.02 U 3.96 0.00	11/27/2023 03/14/2022 09/10/2021	16.96 458.29 <b>Average</b> U 0.0047 0.24 U 0.74 U 4.14 U U 0.66 U 0.24 2.85 0.02 U 0.24 2.85 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 0.01	(°C) Ft. Units mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	16 11 No. of Samples 3 3 3 3 12 3 12 3 3 3 3 3 3 3 3 3 3 3 3	25.50 541.50 U 0.0114 0.40 U 0.82 U 17.40 U 17.40 U 1.06 10.80 0.26 10.80 0.03 U 0.02 U 0.02 U 8.03 0.01 15.80	07/23/2021 11/27/2023 08/04/2021 08/04/2021 09/10/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 09/03/2021 09/03/2021 08/04/2021	11.11 441.60 U 0.0011 0.07 U 0.71 U 0.71 U 2.44 U U 0.45 U 0.23 1.81 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 3.96 0.00 3.30	11/27/2023 03/14/2022 09/10/2021	16.96 458.29 <b>Average</b> U 0.0047 0.24 U 0.74 U 4.14 U 0.66 U 0.24 2.85 0.02 U 0.24 2.85 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 0.02	(°C) Ft. Units mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Selenium, dissolved Selenium, dissolved Sodium, dissolved	16         11         No. of         3         3         3         3         12         3         3         12         3         12         3         3         12         3         3         12         3         3         12         3         12         3         12         3         12         3         12         3         12         3         12	25.50 541.50 U 0.0114 0.40 U 0.82 U 17.40 U 17.40 U 1.06 U 0.26 10.80 0.03 U 0.02 U 0.02 U 8.03 0.01 15.80 356	07/23/2021 11/27/2023 Date 08/04/2021 09/10/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 08/04/2021 09/03/2021 09/03/2021 09/03/2021	11.11 441.60 U 0.0011 0.07 U 0.71 U 2.44 U U 0.45 U 0.23 1.81 0.02 U 0.02 U 0.02 U 0.02 U 3.96 0.00 3.30 332	11/27/2023 03/14/2022 09/10/2021	16.96 458.29 U 0.0047 0.24 U 0.74 U 4.14 U U 0.66 U 0.24 2.85 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.	(°C) Ft. Units mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Selenium, dissolved Selenium, dissolved Silica, dissolved Sodium, dissolved	16         11         No. of         3         3         3         3         12         3         12         3         3         12         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         12         3         12         3         12         3         12         3         12         3         12         12         12         12         12         12         12         12         12         12         12         12         12	25.50 541.50 High U 0.0114 0.40 U 0.82 U 17.40 U 17.40 U 17.40 U 17.40 U 10.82 U 0.26 10.80 0.03 U 0.02 U 0.02 U 8.03 0.01 15.80 356 0.69	07/23/2021 11/27/2023 Date 08/04/2021 09/10/2021 08/04/2021 09/03/2021 09/03/2021	11.11 441.60 U 0.0011 0.07 U 0.71 U 2.44 U U 0.45 U 0.23 1.81 0.02 U 0.23 1.81 0.02 U 0.02 U 0.02 U 0.02 U 3.96 0.00 3.30	11/27/2023 03/14/2022 09/10/2021	16.96 458.29 <b>Average</b> U 0.0047 0.24 U 0.74 U 4.14 U 0.66 U 0.24 2.85 0.02 U 0.24 2.85 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 0.02	(°C) Ft. Units mg/l
pH, Field Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Selenium, dissolved Selenium, dissolved Sodium, dissolved	16         11         No. of         3         3         3         3         12         3         12         3         3         12         3         3         3         12         3         3         12         3         3         12         3         3         12         3         12         3         12         3         12         3         12         3         3         12         3         12         3         12         3         12         3         12         3         12         3         12         3         12         3         3         3         3         3	25.50 541.50 U 0.0114 0.40 U 0.82 U 17.40 U 17.40 U 1.06 U 0.26 10.80 0.03 U 0.02 U 0.02 U 8.03 0.01 15.80 356	07/23/2021 11/27/2023 Date 08/04/2021 09/10/2021 08/04/2021 09/03/2021 09/03/2021	11.11 441.60 U 0.0011 0.07 U 0.71 U 2.44 U U 0.45 U 0.23 1.81 0.02 U 0.02 U 0.02 U 0.02 U 3.96 0.00 3.30 332	11/27/2023 03/14/2022 09/10/2021	16.96 458.29 U 0.0047 0.24 U 0.74 U 4.14 U U 0.66 U 0.24 2.85 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.	(°C) Ft. Units mg/l

#### Appx. Table A-19: BG-10 Quarterly B-Groove Aquifer

DAUB & ASSOCIATES, INC. 



Parameters	No. of						
Wet Chemistry	Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3		977	11/27/2023	683	03/05/2021	787	mg/l
Carbonate as CaCO3		240	08/15/2023	63	03/16/2021	136	mg/l
Total Alkalinity as CaCO3		1,110	11/27/2023	830	05/03/2021	923	mg/l
Bromide		<u> </u>	03/05/2021	<u> </u>	05/03/2021	<u> </u>	mg/l
Cation-Anion Balance		4.80	08/02/2021	-7.70	07/12/2021	-1.96	%
Sum of Anions		31.00	11/27/2023	19.00	03/05/2021	22.80	meq/l
Sum of Cations		29.00	11/27/2023	17.00	03/05/2021	21.95	meq/l
Chemical Oxygen Demand	4	34.00	03/05/2021	10.00	03/09/2021	16.75	mg/l
Chloride		265	11/27/2023	43	03/16/2021	117	mg/l
Conductivity, Lab		2,810	11/27/2023	1,690	05/03/2021	2,045	umhos
Fluoride		24.70	05/03/2021	15.30	08/15/2023	20.80	mg/l
Hardness as CaCO3		26.00	11/27/2023	14.00	03/16/2021	18.75	mg/l
			03/05/2021	UH	05/03/2021	UH	
Nitrate as N, dissolved	4	0.06		UH		UH	mg/l
Nitrate/Nitrite as N,		0.06	03/05/2021		05/03/2021		mg/l
Nitrite as N, dissolved		UH	03/05/2021	UH	05/03/2021	UH	mg/l
Nitrogen, Ammonia		0.99	03/16/2021	0.89	03/05/2021	0.95	mg/l
Nitrogen, Organic		0.28	03/05/2021	0.28	03/05/2021	0.28	mg/l
Nitrogen, Total Kjeldahl		1.17	03/05/2021	0.96	03/16/2021	1.06	mg/l
pH, lab		9.20	11/02/2021	8.50	10/05/2021	8.88	units
Phosphate, tota		2.04	03/05/2021	0.15	03/16/2021	0.65	mg/l
Phosphorus, total		0.66	03/05/2021	0.05	03/16/2021	0.21	mg/l
SAR in Water		56	09/07/2022	39.00	03/05/2021	50	none
Sulfate		5	03/05/2021	5.38	03/05/2021	5	mg/l
Sulfide		0.02	05/03/2021	0.02	05/03/2021	0.02	mg/l
Total Dissolved Solids		1,640	11/27/2023	972	03/05/2021	1,215	mg/l
Conductivity, Field		2,642	11/27/2023	1,637	03/09/2021	2,004	µmhos
pH, Field		8.96	11/27/2023	8.15	07/12/2021	8.56	units
Temperature (°C), Field	10		07/10/0001			4457	(00)
		17.40	07/12/2021	12.20	02/13/2023	14.57	(°C)
Water Level, Field		17.40 561.40	07/12/2021 11/08/2022	12.20 539.40	02/13/2023	14.57 549.83	(°C) Ft.
Water Level, Field	19	561.40	11/08/2022	539.40	03/16/2021	549.83	Ft.
Water Level, Field	19 <b>No. of</b>						
Water Level, Field Parameters Metals	19	561.40	11/08/2022 Date	539.40	03/16/2021 Date	549.83	Ft. Units
Water Level, Field Parameters Metals Aluminum, dissolved	19 No. of Samples 4	561.40 <b>High</b> U	11/08/2022 Date 03/05/2021	539.40 Low U	03/16/2021 Date 05/03/2021	549.83 Average	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	19 No. of Samples 4 4	561.40 High U 0.03	11/08/2022           Date           03/05/2021           03/09/2021	539.40 Low U 0.00	03/16/2021 Date 05/03/2021 05/03/2021	549.83 Average U 0.01	Ft. Units mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	19 <b>No. of</b> <u>Samples</u> 4 4 4	561.40 <b>High</b> U	Date           03/05/2021           03/09/2021           05/03/2021	539.40 Low U	03/16/2021 Date 05/03/2021 05/03/2021 03/05/2021	549.83 Average	Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	19 <b>No. of</b> <u>Samples</u> 4 4 4 4	561.40 High U 0.03 0.41 U	Date           03/05/2021           03/09/2021           05/03/2021           03/05/2021	539.40 Low U 0.00 0.19	03/16/2021 Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021	549.83 Average U 0.01 0.32 U	Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	19 <b>No. of</b> <u>Samples</u> 4 4 4 4 4 20	561.40 High U 0.03 0.41 U 0.92	Date           03/05/2021           03/09/2021           05/03/2021           03/05/2021           11/27/2023	539.40 Low U 0.00 0.19 U 0.74	03/16/2021 Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021 03/05/2021	549.83 Average U 0.01 0.32	Ft. Units mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	19 <b>No. of</b> <b>Samples</b> 4 4 4 4 20 4	561.40 High U 0.03 0.41 U 0.92 U	Date           03/05/2021           03/09/2021           05/03/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021	539.40 Low U 0.00 0.19 U 0.74 U	03/16/2021 Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021 03/05/2021 05/03/2021	549.83 Average U 0.01 0.32 U 0.83 U	Ft. Units mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	19 <b>No. of</b> <b>Samples</b> 4 4 4 20 4 20 4 20	561.40 High U 0.03 0.41 U 0.92 U 4.78	Date           03/05/2021           03/09/2021           05/03/2021           03/05/2021           11/27/2023           03/05/2021           12/07/2021	539.40 Low U 0.00 0.19 U 0.74 U 2.75	03/16/2021 Date 05/03/2021 05/03/2021 03/05/2021 03/05/2021 05/03/2021 05/03/2021 04/05/2021	549.83 Average U 0.01 0.32 U 0.83 U 0.83 U 3.58	Ft. Units mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	19 <b>No. of</b> <b>Samples</b> 4 4 4 20 4 20 4 20 4 20 4	561.40 High U 0.03 0.41 U 0.92 U 4.78 0.01	Date           03/05/2021           03/09/2021           05/03/2021           03/05/2021           11/27/2023           03/05/2021           12/07/2021           03/05/2021	539.40 Low U 0.00 0.19 U 0.74 U 2.75 0.01	03/16/2021 Date 05/03/2021 05/03/2021 03/05/2021 03/05/2021 05/03/2021 04/05/2021 03/05/2021	549.83 Average U 0.01 0.32 U 0.83 U 3.58 0.01	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	19 <b>No. of</b> <b>Samples</b> 4 4 4 20 4 20 4 20 4 20 4 4 20 20 4 20 20 4 20 20 20 20 20 20 20 20 20 20	561.40 High U 0.03 0.41 U 0.92 U 4.78 0.01 0.01	Date           03/05/2021           03/09/2021           05/03/2021           03/05/2021           11/27/2023           03/05/2021           12/07/2021           03/05/2021           03/05/2021           12/07/2021           03/05/2021           03/05/2021	539.40 Low U 0.00 0.19 U 0.74 U 2.75 0.01 0.01	03/16/2021 Date 05/03/2021 05/03/2021 03/05/2021 03/05/2021 05/03/2021 04/05/2021 03/05/2021 03/05/2021	549.83 Average U 0.01 0.32 U 0.83 U 3.58 0.01 0.01	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	19 <b>No. of</b> <b>Samples</b> 4 4 4 20 4 20 4 20 4 20 4 20 4 20 4 20 4 20 4 20 4 4 4 20 4 4 4 20 4 4 4 4 20 4 4 4 4 4 20 4 4 4 4 4 4 4 20 4 4 4 4 4 4 4 4 4 4 4 4 4	561.40 High U 0.03 0.41 U 0.92 U 4.78 0.01 0.01 0.94	Date           03/05/2021           03/09/2021           03/05/2021           03/05/2021           03/05/2021           11/27/2023           03/05/2021           12/07/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021	539.40 Low U 0.00 0.19 U 0.74 U 2.75 0.01 0.01 0.40	03/16/2021 Date 05/03/2021 05/03/2021 03/05/2021 03/05/2021 05/03/2021 04/05/2021 03/05/2021 05/03/2021 05/03/2021	549.83 Average U 0.01 0.32 U 0.83 U 3.58 0.01 0.01 0.66	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	19 <b>No. of</b> <b>Samples</b> 4 4 4 20 4 20 4 20 4 20 4 4 20 4 20 4 4 4 20 4 4 4 20 4 4 4 4 4 20 4 4 4 4 4 4 4 4 4 4 4 4 4	561.40 High U 0.03 0.41 U 0.92 U 4.78 0.01 0.01 0.94 U	Date           03/05/2021           03/09/2021           05/03/2021           03/05/2021           11/27/2023           03/05/2021           12/07/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021	539.40 Low U 0.00 0.19 U 0.74 U 2.75 0.01 0.01 0.40 U	03/16/2021 Date 05/03/2021 05/03/2021 03/05/2021 03/05/2021 05/03/2021 04/05/2021 03/05/2021 05/03/2021 05/03/2021 05/03/2021	549.83 Average U 0.01 0.32 U 0.83 U 3.58 0.01 0.01 0.66 U	Ft. mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	19 <b>No. of</b> <u>Samples</u> 4 4 4 20 4 20 4 20 4 20 4 4 20 4 4 4 4 4 4 4 4 4 4 4 4 4	561.40 High U 0.03 0.41 U 0.92 U 4.78 0.01 0.01 0.01 0.94 U 0.16	Date           03/05/2021           03/09/2021           05/03/2021           03/05/2021           11/27/2023           03/05/2021           12/07/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021	539.40 Low U 0.00 0.19 U 0.74 U 2.75 0.01 0.01 0.40 U 0.15	03/16/2021 Date 05/03/2021 05/03/2021 03/05/2021 03/05/2021 05/03/2021 04/05/2021 03/05/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021	549.83           Average           U           0.01           0.32           U           3.58           0.01           0.01           0.66           U           0.16	Ft. mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Magnesium, dissolved	19 <b>No. of</b> <b>Samples</b> 4 4 20 4 20 4 20 4 4 4 4 4 4 4 4 20 20 4 4 20 4 20 4 20 4 20 20 4 20 20 20 20 20 20 20 20 20 20	561.40 High U 0.03 0.41 U 0.92 U 4.78 0.01 0.01 0.94 U 0.16 3.50	Date           03/05/2021           03/09/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           11/27/2023           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/16/2021           11/27/2023	539.40 Low U 0.00 0.19 U 0.74 U 2.75 0.01 0.01 0.40 U 0.15 1.79	03/16/2021 Date 05/03/2021 05/03/2021 03/05/2021 03/05/2021 05/03/2021 04/05/2021 03/05/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 03/05/2021 03/05/2021 03/05/2021	549.83 Average U 0.01 0.32 U 0.83 U 3.58 0.01 0.01 0.66 U 0.16 2.38	Ft. mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	19 <b>No. of</b> <b>Samples</b> 4 4 20 4 20 4 4 20 4 4 4 4 4 4 4 20 4 4 4 4 4 4 4 4 4 4 4 4 4	561.40 High U 0.03 0.41 U 0.92 U 4.78 0.01 0.94 U 0.16 3.50 0.04	Date           03/05/2021           03/09/2021           05/03/2021           03/05/2021           03/05/2021           03/05/2021           11/27/2023           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/16/2021           03/16/2021           03/16/2021           03/05/2021           03/05/2021	539.40 Low U 0.00 0.19 U 0.74 U 2.75 0.01 0.01 0.40 U 0.15 1.79 0.02	03/16/2021 Date 05/03/2021 05/03/2021 03/05/2021 03/05/2021 03/05/2021 04/05/2021 03/05/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 03/05/2021 03/16/2021	549.83           Average           U           0.01           0.32           U           0.83           U           3.58           0.01           0.66           U           0.16           2.38           0.03	Ft. mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Mercury, dissolved	19 <b>No. of</b> <b>Samples</b> 4 4 20 4 20 4 20 4 4 20 4 4 20 4 4 20 4 4 4 20 4 4 4 4 4 4 4 20 4 4 4 4 20 4 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 4 20 4 4 4 4 4 20 4 4 4 4 4 4 4 4 4 4 4 4 4	561.40 High U 0.03 0.41 U 0.92 U 4.78 0.01 0.94 U 0.16 3.50 0.04 U	Date           03/05/2021           03/09/2021           05/03/2021           03/05/2021           03/05/2021           11/27/2023           03/05/2021           12/07/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/16/2021           03/16/2021           03/05/2021           03/05/2021           03/05/2021	539.40 Low U 0.00 0.19 U 0.74 U 2.75 0.01 0.01 0.40 U 0.15 1.79 0.02 U	03/16/2021 Date 05/03/2021 05/03/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 05/03/2021 05/03/2021 03/05/2021 03/16/2021 03/16/2021 05/03/2021	549.83 Average U 0.01 0.32 U 0.83 U 3.58 0.01 0.01 0.66 U 0.16 2.38 0.03 U	Ft. mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved	19 <b>No. of</b> <u>Samples</u> 4 4 20 4 20 4 20 4 4 20 4 4 20 4 4 4 20 4 4 4 4 4 4 4 4 4 4 4 4 4	561.40 High U 0.03 0.41 U 0.92 U 4.78 0.01 0.94 U 0.16 3.50 0.04 U 0.13	Date           03/05/2021           03/09/2021           05/03/2021           03/05/2021           03/05/2021           11/27/2023           03/05/2021           12/07/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/16/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021           03/05/2021	539.40 Low U 0.00 0.19 U 0.74 U 2.75 0.01 0.01 0.40 U 0.15 1.79 0.02 U 0.06	03/16/2021 Date 05/03/2021 05/03/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 05/03/2021 03/05/2021 03/05/2021 03/16/2021 03/16/2021 03/05/2021 03/05/2021	549.83 Average U 0.01 0.32 U 0.83 U 0.83 U 3.58 0.01 0.01 0.66 U 0.16 2.38 0.03 U 0.09	Ft. mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	19 No. of Samples 4 4 4 20 4 20 4 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 4	561.40 High U 0.03 0.41 U 0.92 U 4.78 0.01 0.94 U 0.16 3.50 0.04 U 0.13 U	Date           03/05/2021           03/09/2021           05/03/2021           03/05/2021           03/05/2021           11/27/2023           03/05/2021           12/07/2021           03/05/2021	539.40 Low U 0.00 0.19 U 0.74 U 2.75 0.01 0.01 0.40 U 0.15 1.79 0.02 U 0.06 U	03/16/2021 Date 05/03/2021 05/03/2021 03/05/2021 03/05/2021 03/05/2021 04/05/2021 05/03/2021 05/03/2021 05/03/2021 03/16/2021 03/16/2021 03/16/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021	549.83 Average U 0.01 0.32 U 0.83 U 3.58 0.01 0.66 U 0.16 2.38 0.03 U 0.09 U	Ft. mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	19 <b>No. of</b> <b>Samples</b> 4 4 20 4 20 4 4 4 20 4 4 4 20 4 4 4 4 20 4 4 4 20 4 4 4 20 4 20 4 20 4 20 4 20 4 20 4 20 4 20 4 20 4 20 20 4 20 20 4 20 20 4 20 20 20 20 20 20 20 20 20 20	561.40 High U 0.03 0.41 U 0.92 U 4.78 0.01 0.94 U 0.16 3.50 0.04 U 0.13 U 2.90	Date           03/05/2021           03/09/2021           05/03/2021           03/05/2021           03/05/2021           11/27/2023           03/05/2021           12/07/2021           03/05/2021	539.40 Low U 0.00 0.19 U 0.74 U 2.75 0.01 0.01 0.40 U 0.15 1.79 0.02 U 0.06 U 0.90	03/16/2021 Date 05/03/2021 05/03/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 05/03/2021 05/03/2021 03/05/2021 03/16/2021 03/16/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 04/05/2021	549.83 Average U 0.01 0.32 U 0.83 U 3.58 0.01 0.66 U 0.16 2.38 0.03 U 0.09 U 1.22	Ft. mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	19 No. of Samples 4 4 20 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 20 4 4 4 4 4 4 4 4 4 4 4 4 4	561.40 High U 0.03 0.41 U 0.92 U 4.78 0.01 0.94 U 0.16 3.50 0.04 U 0.13 U 2.90 0.00	Date           03/05/2021           03/09/2021           05/03/2021           03/05/2021           03/05/2021           11/27/2023           03/05/2021           12/07/2021           03/05/2021	539.40 Low U 0.00 0.19 U 0.74 U 2.75 0.01 0.01 0.40 U 0.15 1.79 0.02 U 0.06 U 0.90 0.00	03/16/2021 Date 05/03/2021 05/03/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 05/03/2021 05/03/2021 03/05/2021 03/16/2021 03/16/2021 03/05/2021 03/05/2021 03/05/2021 04/05/2021 03/05/2021	549.83           Average           U           0.01           0.32           U           0.83           U           3.58           0.01           0.66           U           0.16           2.38           0.03           U           0.16           2.38           0.03           U           0.09           U           1.22           0.00	Ft. mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Chromium, dissolved           Copper, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Magnese, dissolved           Molybdenum, dissolved           Nickel, dissolved           Potassium, dissolved           Selenium, dissolved	19 No. of Samples 4 4 20 4 20 4 4 20 4 4 20 4 4 4 20 4 4 20 4 4 20 20 4 20 20 20 20 20 20 20 20 20 20	561.40 High U 0.03 0.41 U 0.92 U 4.78 0.01 0.94 U 0.16 3.50 0.04 U 0.13 U 2.90 0.00 16.60	Date           03/05/2021           03/09/2021           05/03/2021           03/05/2021           03/05/2021           11/27/2023           03/05/2021           12/07/2021           03/05/2021           03/09/2021           03/09/2021           11/02/2021	539.40 Low U 0.00 0.19 U 0.74 U 2.75 0.01 0.01 0.40 U 0.15 1.79 0.02 U 0.06 U 0.90 0.00 10.30	03/16/2021 Date 05/03/2021 05/03/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 05/03/2021 03/05/2021 03/16/2021 03/16/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021	549.83           Average           U           0.01           0.32           U           0.83           U           3.58           0.01           0.66           U           0.16           2.38           0.03           U           0.16           2.38           0.03           U           0.09           U           1.22           0.00           15.00	Ft. mg/l
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Chromium, dissolved           Copper, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Magnese, dissolved           Molybdenum, dissolved           Nickel, dissolved           Potassium, dissolved           Selenium, dissolved           Solica, dissolved	19 No. of Samples 4 4 20 4 20 4 4 20 4 4 20 4 4 20 4 4 20 4 4 20 4 20 4 20 4 20 4 20 4 20 4 20 4 20 4 20 20 20 20 20 20 20 20 20 20	561.40 High U 0.03 0.41 U 0.92 U 4.78 0.01 0.94 U 0.16 3.50 0.04 U 0.13 U 2.90 0.00 16.60 654	Date           03/05/2021           03/05/2021           03/05/2021           05/03/2021           03/05/2021           11/27/2023           03/05/2021           12/07/2021           03/05/2021           03/09/2021           11/02/2021           11/27/2023	539.40 Low U 0.00 0.19 U 0.74 U 2.75 0.01 0.01 0.40 U 0.15 1.79 0.02 U 0.06 U 0.90 0.00 10.30 372	03/16/2021 Date 05/03/2021 05/03/2021 05/03/2021 05/03/2021 03/05/2021 03/05/2021 05/03/2021 05/03/2021 03/05/2021 03/16/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021	549.83           Average           U           0.01           0.32           U           0.83           U           3.58           0.01           0.66           U           0.16           2.38           0.03           U           0.09           U           1.22           0.00           15.00           488	Ft.           mg/l           mg/l     <
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Calcium, dissolved           Chromium, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Magnese, dissolved           Molybdenum, dissolved           Nickel, dissolved           Potassium, dissolved           Selenium, dissolved           Sodium, dissolved	19 No. of Samples 4 4 20 4 20 4 20 4 4 20 4 4 20 4 4 20 4 20 4 20 4 20 4 20 4 20 4 20 4 20 4 20 20 20 20 20 20 20 20 20 20	561.40           High           U           0.03           0.41           U           0.92           U           4.78           0.01           0.94           U           0.01           0.94           U           0.16           3.50           0.04           U           0.13           U           2.90           0.00           16.60           654           1.60	Date           03/05/2021           03/05/2021           05/03/2021           03/05/2021           11/27/2023           03/05/2021           11/27/2023           03/05/2021           12/07/2021           03/05/2021           03/09/2021           11/27/2023           11/27/2023           11/27/2023	539.40 Low U 0.00 0.19 U 0.74 U 2.75 0.01 0.01 0.40 U 0.15 1.79 0.02 U 0.06 U 0.90 0.00 10.30 372 0.63	03/16/2021 Date 05/03/2021 05/03/2021 05/03/2021 05/03/2021 03/05/2021 03/05/2021 04/05/2021 05/03/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021	549.83           Average           U           0.01           0.32           U           0.83           U           3.58           0.01           0.66           U           0.16           2.38           0.03           U           1.22           0.00           15.00           488           0.96	Ft.           mg/l           mg/l     <
Water Level, Field           Parameters           Metals           Aluminum, dissolved           Arsenic, dissolved           Barium, dissolved           Beryllium, dissolved           Boron, dissolved           Cadmium, dissolved           Cadmium, dissolved           Calcium, dissolved           Chromium, dissolved           Copper, dissolved           Lead, dissolved           Lead, dissolved           Magnesium, dissolved           Magnese, dissolved           Molybdenum, dissolved           Nickel, dissolved           Potassium, dissolved           Selenium, dissolved           Solica, dissolved	19 No. of Samples 4 4 20 4 20 4 20 4 4 20 4 4 20 4 4 20 20 4 20 20 4 20 20 4 20 20 4 20 4 20 20 4 20 20 4 20 20 4 20 20 20 20 20 20 20 20 20 20	561.40 High U 0.03 0.41 U 0.92 U 4.78 0.01 0.94 U 0.16 3.50 0.04 U 0.13 U 2.90 0.00 16.60 654	Date           03/05/2021           03/05/2021           03/05/2021           05/03/2021           03/05/2021           11/27/2023           03/05/2021           12/07/2021           03/05/2021           03/09/2021           11/02/2021           11/27/2023	539.40 Low U 0.00 0.19 U 0.74 U 2.75 0.01 0.01 0.40 U 0.15 1.79 0.02 U 0.06 U 0.90 0.00 10.30 372	03/16/2021 Date 05/03/2021 05/03/2021 05/03/2021 05/03/2021 03/05/2021 03/05/2021 05/03/2021 05/03/2021 03/05/2021 03/16/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021	549.83           Average           U           0.01           0.32           U           0.83           U           3.58           0.01           0.66           U           0.16           2.38           0.03           U           0.09           U           1.22           0.00           15.00           488	Ft.           mg/l           mg/l     <

#### Appx. Table A-20: BG-11 Quarterly B-Groove Aquifer

DAUB & ASSOCIATES, INC. 201 H Salar W. JANIN WAY ...



	No. of						
Parameters Wet Chemistry	Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3		806.00	12/16/1992	183.00	01/24/2023	627.19	mg/l
Carbonate as CaCO3		754.00	09/27/1990	10.00	06/16/1992	102.28	mg/l
Total Alkalinity as CaCO3		1,064.00	09/27/1990	250.00	01/24/2023	708.16	mg/l
Bromide		2.60	09/07/1990	0.06	05/26/2000	0.74	mg/l
Cation-Anion Balance		11.10	05/29/2002	-9.40	07/29/2009	0.19	%
Sum of Anions		24.21	09/27/1990	9.70	01/24/2023	16.31	meg/l
Sum of Cations		23.84	09/27/1990	9.50	01/24/2023	16.31	meq/l
Chemical Oxygen Demand		550.00	07/29/2009	11.00	08/24/2017	145.19	mg/l
Chloride		524.00	09/07/1990	11.00	06/30/1995	40.98	mg/l
Conductivity, Lab		1,660.00	09/08/1993	932.00	01/24/2023	1,429.18	umhos
Fluoride		32.00	09/28/1994	2.80	05/28/1991	21.64	mg/l
Hardness as CaCO3		59.00	09/27/1990	3.00	06/30/2009	11.46	mg/l
Nitrate as N, dissolved		1.99	06/14/2008	0.02	06/30/1995	0.23	mg/l
Nitrate/Nitrite as N,		2.13	06/14/2008	0.02	09/28/1994	0.24	mg/l
Nitrite as N, dissolved		0.14	06/14/2008	0.01	10/03/2012	0.08	mg/l
Nitrogen, Ammonia		5.70	05/09/2001	0.58	05/21/2007	1.12	mg/l
Nitrogen, Organio		34.70	07/29/2009	0.37	03/08/2021	8.31	mg/l
Nitrogen, Total Kjeldahl		35.50	07/29/2009	1.13	03/08/2021	9.40	mg/l
pH, lab		11.60	12/20/1993	8.40	12/30/1996	8.86	units
Phosphate, tota		0.90	09/07/1990	0.03	05/26/2000	0.14	mg/l
Phosphorus, total		0.30	09/07/1990	0.00	06/18/1996	0.05	mg/l
SAR in Water		92.00	11/27/2002	12.00	01/24/2023	51.69	none
Sulfate		210.00	01/24/2023	2.00	05/28/1991	25.91	mg/l
Sulfide		0.80	09/07/1990	0.01	05/26/2004	0.13	mg/l
Total Dissolved Solids		1,428.00	09/27/1990	600.00	01/24/2023	909.17	mg/l
Conductivity, Field		3,803.00	09/01/2009	982.00	11/21/2005	1,535.68	μmhos
pH, Field		12.00	09/27/1990	7.60	09/16/2019	9.27	units
Temperature (°C), Field		16.20	06/14/2008	7.70	02/12/2023	12.12	(°C)
Water Level, Field		435.60	08/24/2017	398.45	11/01/1990	412.85	Ft.
	04	400.00	00/24/2017	000.40	11/01/1000	412.00	1.
Parameters	No. of				_		
	NO. 01					•	
		High	Date	Low	Date	Average	Units
Metals	Samples	-				•	
Metals Aluminum, dissolved	Samples 34	3.79	09/27/1990	0.03	05/26/2004	0.65	mg/l
Metals Aluminum, dissolved Arsenic, dissolved	<b>Samples</b> 34 34	3.79 0.03	09/27/1990 09/27/1990	0.03	05/26/2004 05/26/2004	0.65 0.01	mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	Samples           34           34           34           34	3.79	09/27/1990 09/27/1990 03/08/2021	0.03 0.00 0.01	05/26/2004 05/26/2004 09/07/1990	0.65	mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	Samples           34           34           34           34           34           34	3.79 0.03 0.44	09/27/1990 09/27/1990 03/08/2021 03/08/2021	0.03 0.00 0.01 U	05/26/2004 05/26/2004 09/07/1990 09/07/1990	0.65 0.01 0.24 U	mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	Samples 34 34 34 34 34 67	3.79 0.03 0.44 U	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991	0.03 0.00 0.01	05/26/2004 05/26/2004 09/07/1990	0.65 0.01 0.24	mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	Samples 34 34 34 34 67 34	3.79 0.03 0.44 U 0.72 U	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021	0.03 0.00 0.01 U 0.08 U	05/26/2004 05/26/2004 09/07/1990 09/07/1990 01/24/2023 09/07/1990	0.65 0.01 0.24 U 0.56 U	mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	Samples           34           34           34           67           34           67           67           67           67	3.79 0.03 0.44 U 0.72	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990	0.03 0.00 0.01 U 0.08 U 0.00	05/26/2004 05/26/2004 09/07/1990 09/07/1990 01/24/2023 09/07/1990 02/26/1991	0.65 0.01 0.24 U 0.56	mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	Samples           34           34           34           67           34           67           34           67           34	3.79 0.03 0.44 U 0.72 U 12.00	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021	0.03 0.00 0.01 U 0.08 U	05/26/2004 05/26/2004 09/07/1990 09/07/1990 01/24/2023 09/07/1990 02/26/1991 09/07/1990	0.65 0.01 0.24 U 0.56 U 2.38	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	Samples 34 34 34 67 34 67 34 67 34 34 34	3.79 0.03 0.44 U 0.72 U 12.00 0.01 0.07	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013	0.03 0.00 0.01 U 0.08 U 0.00 0.01	05/26/2004 05/26/2004 09/07/1990 09/07/1990 01/24/2023 09/07/1990 02/26/1991 09/07/1990 10/22/2013	0.65 0.01 0.24 U 0.56 U 2.38 0.01 0.07	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	Samples 34 34 34 67 34 67 34 67 34 34 34 34	3.79 0.03 0.44 U 0.72 U 12.00 0.01	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021	0.03 0.00 0.01 U 0.08 U 0.00 0.01 0.07	05/26/2004 05/26/2004 09/07/1990 09/07/1990 01/24/2023 09/07/1990 02/26/1991 09/07/1990	0.65 0.01 0.24 U 0.56 U 2.38 0.01	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	Samples 34 34 34 67 34 67 34 67 34 34 34 34 34	3.79 0.03 0.44 U 0.72 U 12.00 0.01 0.07 0.24	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016	0.03 0.00 0.01 U 0.08 U 0.00 0.01 0.07 0.01 0.02	05/26/2004 05/26/2004 09/07/1990 09/07/1990 01/24/2023 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994	0.65 0.01 0.24 U 0.56 U 2.38 0.01 0.07 0.05 0.15	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	Samples           34           34           34           67           34           67           34           37           34           34           34           34           34           34           34           34           34           34           34           34           34	3.79 0.03 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014	0.03 0.00 0.01 U 0.08 U 0.00 0.01 0.07 0.01	05/26/2004 05/26/2004 09/07/1990 09/07/1990 01/24/2023 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999	0.65 0.01 0.24 U 0.56 U 2.38 0.01 0.07 0.05	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	Samples 34 34 34 67 34 67 34 67 34 34 34 34 34 34 67	3.79 0.03 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 09/27/1990	0.03 0.00 0.01 U 0.08 U 0.00 0.01 0.07 0.01 0.02 0.06	05/26/2004 05/26/2004 09/07/1990 01/24/2023 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991	0.65 0.01 0.24 U 0.56 U 2.38 0.01 0.07 0.05 0.15 0.08	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	Samples 34 34 34 67 34 67 34 34 34 34 34 34 34 67 34 34 34 34 34 34 34 34 34 34	3.79 0.03 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 09/27/1990 03/27/2018	0.03 0.00 0.01 U 0.08 U 0.00 0.01 0.07 0.01 0.02 0.06 0.00	05/26/2004 05/26/2004 09/07/1990 01/24/2023 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991	0.65 0.01 0.24 U 0.56 U 2.38 0.01 0.07 0.05 0.15 0.08 1.29	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	Samples 34 34 34 67 34 67 34 34 34 34 34 34 67 34 34 34 34 34 34 34 34 34 34	3.79 0.03 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00 0.02	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 09/27/1990 03/27/2018 03/08/2021	0.03 0.00 0.01 U 0.08 U 0.00 0.01 0.07 0.01 0.02 0.06 0.00 0.01	05/26/2004 05/26/2004 09/07/1990 09/07/1990 01/24/2023 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991 09/07/1990	0.65 0.01 0.24 U 0.56 U 2.38 0.01 0.07 0.05 0.15 0.08 1.29 0.01	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Mercury, dissolved	Samples 34 34 34 67 34 67 34 34 34 34 34 67 34 34 34 34 34 34 34 34 34 34	3.79 0.03 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00 0.02 U	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 09/27/1990 03/27/2018	0.03 0.00 0.01 U 0.08 U 0.00 0.01 0.07 0.01 0.02 0.06 0.00 0.01 U	05/26/2004 05/26/2004 09/07/1990 01/24/2023 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991	0.65 0.01 0.24 U 0.56 U 2.38 0.01 0.07 0.05 0.15 0.08 1.29 0.01 U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Molybdenum, dissolved	Samples 34 34 34 67 34 67 34 34 34 34 67 34 34 34 34 34 34 34 34 34 34	3.79 0.03 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00 0.02 U 0.02	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 03/27/1990 03/27/2018 03/08/2021 03/22/2016	0.03 0.00 0.01 U 0.08 U 0.00 0.01 0.07 0.01 0.02 0.06 0.00 0.01 U 0.02	05/26/2004 05/26/2004 09/07/1990 01/24/2023 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991 09/07/1990 03/22/2016	0.65 0.01 0.24 U 0.56 U 2.38 0.01 0.07 0.05 0.15 0.08 1.29 0.01 U 0.02	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Molybdenum, dissolved Nickel, dissolved	Samples 34 34 34 67 34 67 34 34 34 34 34 67 34 34 34 34 34 34 34 34 34 34	3.79 0.03 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00 0.02 U 0.02 U 0.02 0.02	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 03/27/1990 03/27/2018 03/08/2021 03/22/2016 06/23/1994	0.03 0.00 0.01 U 0.08 U 0.00 0.01 0.07 0.01 0.07 0.01 0.02 0.06 0.00 0.01 U 0.02 0.02 0.02	05/26/2004 05/26/2004 09/07/1990 09/07/1990 01/24/2023 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991 09/07/1990 03/22/2016 06/23/1994	0.65 0.01 0.24 U 0.56 U 2.38 0.01 0.07 0.05 0.15 0.08 1.29 0.01 U 0.02 0.02	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Marcury, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	Samples 34 34 34 67 34 67 34 34 34 34 67 34 34 34 34 34 34 34 34 34 34	3.79 0.03 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00 0.02 U 0.02 0.02 13.00 0.0020	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 03/27/2018 03/08/2021 03/22/2016 06/23/1994 09/07/1990	0.03 0.00 0.01 U 0.08 U 0.00 0.01 0.07 0.01 0.07 0.01 0.02 0.06 0.00 0.01 U 0.02 0.02 0.02 0.02 0.86 0.0010	05/26/2004 05/26/2004 09/07/1990 09/07/1990 01/24/2023 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991 03/22/2016 06/23/1994 03/08/2021 07/31/1991	0.65 0.01 0.24 U 0.56 U 2.38 0.01 0.07 0.05 0.15 0.08 1.29 0.01 U 0.02 0.02 1.79 0.0015	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	Samples 34 34 34 67 34 67 34 34 34 34 67 34 34 34 34 34 34 34 34 34 34	3.79 0.03 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00 0.02 U 0.02 0.02 13.00 0.0020 63.00	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 03/27/2018 03/08/2021 03/22/2016 06/23/1994 09/07/1990 09/27/1990	0.03 0.00 0.01 U 0.08 U 0.00 0.01 0.07 0.01 0.07 0.01 0.02 0.06 0.00 0.01 U 0.02 0.02 0.02 0.02 0.86	05/26/2004 05/26/2004 09/07/1990 09/07/1990 01/24/2023 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991 03/22/2016 06/23/1994 03/08/2021 07/31/1991 12/20/1993	0.65 0.01 0.24 U 0.56 U 2.38 0.01 0.07 0.05 0.15 0.08 1.29 0.01 U 0.02 0.02 1.79 0.0015 17.26	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Marcury, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	Samples 34 34 34 67 34 67 34 34 34 34 34 34 34 34 34 34	3.79 0.03 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00 0.02 U 0.02 0.02 13.00 0.0020	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 09/27/1990 09/27/1990 09/27/1990 09/27/1990	0.03 0.00 0.01 U 0.08 U 0.00 0.01 0.07 0.01 0.07 0.01 0.02 0.06 0.00 0.01 U 0.02 0.02 0.02 0.86 0.0010 9.50 191.00	05/26/2004 05/26/2004 09/07/1990 09/07/1990 01/24/2023 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991 03/22/2016 06/23/1994 03/08/2021 07/31/1991 12/20/1993 01/24/2023	0.65 0.01 0.24 U 0.56 U 2.38 0.01 0.07 0.05 0.15 0.08 1.29 0.01 U 0.02 0.02 1.79 0.0015	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	Samples 34 34 34 67 34 67 34 34 34 34 34 34 34 34 34 34	3.79 0.03 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00 0.02 U 0.02 13.00 0.020 63.00 508.00	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 03/27/2018 03/08/2021 03/22/2016 06/23/1994 09/07/1990 09/27/1990	0.03 0.00 0.01 U 0.08 U 0.00 0.01 0.07 0.01 0.02 0.06 0.00 0.01 U 0.02 0.02 0.02 0.02 0.02 0.86 0.0010 9.50	05/26/2004 05/26/2004 09/07/1990 09/07/1990 01/24/2023 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991 03/22/2016 06/23/1994 03/08/2021 07/31/1991 12/20/1993	0.65 0.01 0.24 U 0.56 U 2.38 0.01 0.07 0.05 0.15 0.08 1.29 0.01 U 0.02 0.02 1.79 0.0015 17.26 364.73	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Appx. Table A-21: MMC-IRI-6 Annual B-Groove Aquifer

DAUB & ASSOCIATES, INC. 2013 Start Start Start Start



	N						1
Parameters	No. of	High	Date	Low	Date	Average	Units
Wet Chemistry	Samples	-	05/04/0005	17 400	11/07/0000	-	
Bicarbonate as CaCO3		43,000	05/24/2005	17,400	11/27/2002	27,126	mg/l
Carbonate as CaCO3		23,900	05/03/2008	419	06/26/2002	3,932	mg/l
Total Alkalinity as CaCO3	218	60,100	03/14/2008	21,900	06/11/2014	30,885	mg/l
Bromide		5.00	05/03/2008	0.70	08/02/2006	2.18	mg/l
Cation-Anion Balance		13.50	10/28/2002	-93.80	04/10/2013	-4.68	%
Sum of Anions		1,440.00	04/07/2020	511.00	04/29/2003	780.79	meq/l
Sum of Cations		1,730.00	03/14/2008	20.70	04/10/2013	726.52	meq/l
Chemical Oxygen Demand	33	1,100.00	07/30/2009	140.00	08/21/2003	397.20	mg/l
Chloride		17,200.00	12/19/2018	39.00	05/24/2005	5,703.23	mg/l
Conductivity, Lab		81,800	02/13/2019	27,200	09/28/2006	47,338	umhos
Fluoride		329.00	11/07/2018	2.80	05/24/2005	61.42	mg/l
Hardness as CaCO3		49.00	03/08/2011	1.00	01/28/2003	14.93	mg/l
Nitrate as N, dissolved	33	0.10	08/12/2004	0.02	09/28/2006	0.05	mg/l
Nitrate/Nitrite as N,	33	0.14	11/10/2014	0.02	09/28/2006	0.05	mg/l
Nitrite as N, dissolved	33	0.05	11/10/2014	0.01	07/11/2013	0.03	mg/l
Nitrogen, Ammonia		34.20	12/19/2018	4.84	03/14/2022	12.88	mg/l
Nitrogen, Organic		28.00	08/22/2002	0.80	09/30/2008	8.90	mg/l
Nitrogen, Total Kjeldahl	33	50.00	12/19/2018	3.50	09/23/2010	19.64	mg/l
pH, lab	218	9.20	04/10/2008	7.90	10/28/2002	8.62	units
Phosphate, total	33	155.00	07/30/2009	3.10	08/16/2011	34.23	mg/l
Phosphorus, total	33	183.00	09/30/2008	3.20	06/26/2007	14.46	mg/l
SAR in Water	152	8,450	05/18/2006	0.00	12/09/2014	2,475	none
Sulfate	218	1,860	09/23/2010	0.00	09/02/2015	206	mg/l
Sulfide		18.10	06/10/2020	0.04	08/25/2005	3.86	mg/l
Total Dissolved Solids		88,500	03/14/2008	18,500	05/29/2003	41,507	mg/l
Conductivity, Field		86,810	02/13/2019	30,600	04/29/2003	50,316	µmhos
pH, Field	239	9.91	06/30/2009	7.00	03/09/2016	8.43	units
Tomporatives (00) Field	000	0440					
Temperature (°C), Field		24.40	07/05/2016	5.30	02/09/2012	12.87	(°C)
Water Level, Field		24.40 547.30	07/05/2016 08/02/2021	5.30 484.10	02/09/2012 02/04/2016	12.87 521.75	(°C) Ft.
Water Level, Field	246						
Water Level, Field Parameters	246 No. of						
Water Level, Field Parameters Metals	246 No. of Samples	547.30 High	08/02/2021 Date	484.10 Low	02/04/2016 Date	521.75 Average	Ft. Units
Water Level, Field Parameters Metals Aluminum, dissolved	246 <b>No. of</b> Samples 34	547.30 High 79.90	08/02/2021 Date 08/12/2004	484.10 Low 0.40	02/04/2016 Date 03/14/2008	521.75 Average 17.00	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	246 <b>No. of</b> Samples 34 34	547.30 High 79.90 0.02	08/02/2021 Date 08/12/2004 06/10/2020	484.10 Low 0.40 0.01	02/04/2016 Date 03/14/2008 12/04/2012	521.75 Average 17.00 0.02	Ft. Units mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	246 No. of Samples 34 34 34	547.30 High 79.90 0.02 3.32	08/02/2021 Date 08/12/2004 06/10/2020 08/25/2005	484.10 Low 0.40 0.01 0.19	02/04/2016 Date 03/14/2008 12/04/2012 08/19/2007	521.75 Average 17.00 0.02 1.81	Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	246 <b>No. of</b> <u>Samples</u> 34 34 34 34 34	547.30 High 79.90 0.02 3.32 U	08/02/2021 Date 08/12/2004 06/10/2020 08/25/2005 12/19/2018	484.10 Low 0.40 0.01 0.19 U	02/04/2016 Date 03/14/2008 12/04/2012 08/19/2007 06/10/2020	521.75 Average 17.00 0.02 1.81 U	Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	246 <b>No. of</b> <b>Samples</b> 34 34 34 34 219	547.30 High 79.90 0.02 3.32 U 74.70	08/02/2021 Date 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019	484.10 Low 0.40 0.01 0.19 U 3.69	02/04/2016 Date 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003	521.75 Average 17.00 0.02 1.81 U 19.27	Ft. Units mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	246 <b>No. of</b> <b>Samples</b> 34 34 34 34 219 34	547.30 High 79.90 0.02 3.32 U 74.70 U	08/02/2021 Date 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019 12/19/2018	484.10 Low 0.40 0.01 0.19 U 3.69 U	02/04/2016 Date 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003 06/10/2020	521.75 Average 17.00 0.02 1.81 U 19.27 U	Ft. Units mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	246 No. of Samples 34 34 34 219 34 219	547.30 High 79.90 0.02 3.32 U 74.70 U 14.00	08/02/2021 Date 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019 12/19/2018 07/10/2017	484.10 Low 0.40 0.01 0.19 U 3.69 U 0.30	02/04/2016 Date 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003 06/10/2020 05/29/2003	521.75 Average 17.00 0.02 1.81 U 19.27 U 4.05	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	246 <b>No. of</b> <b>Samples</b> 34 34 34 219 34 219 34 219 34	547.30 High 79.90 0.02 3.32 U 74.70 U 14.00 0.01	08/02/2021 Date 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019 12/19/2018 07/10/2017 05/18/2006	484.10 Low 0.40 0.01 0.19 U 3.69 U 0.30 0.01	02/04/2016 Date 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003 06/10/2020 05/29/2003 05/18/2006	521.75 Average 17.00 0.02 1.81 U 19.27 U 4.05 0.01	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	246 <b>No. of</b> <b>Samples</b> 34 34 34 219 34 219 34 219 34 34 34 34	547.30 High 79.90 0.02 3.32 U 74.70 U 14.00 0.01 1.20	08/02/2021 Date 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019 12/19/2018 07/10/2017 05/18/2006 08/16/2011	484.10 Low 0.40 0.01 0.19 U 3.69 U 0.30 0.01 0.50	02/04/2016 Date 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003 06/10/2020 05/29/2003 05/18/2006 08/12/2004	521.75 Average 17.00 0.02 1.81 U 19.27 U 4.05 0.01 0.85	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	246 <b>No. of</b> <b>Samples</b> 34 34 219 34 219 34 219 34 34 34 34 34 34 34 34	547.30 High 79.90 0.02 3.32 U 74.70 U 14.00 0.01 1.20 3.70	08/02/2021 Date 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019 12/19/2018 07/10/2017 05/18/2006 08/16/2011 09/15/2007	484.10 Low 0.40 0.01 0.19 U 3.69 U 0.30 0.01 0.50 0.07	02/04/2016 Date 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003 06/10/2020 05/29/2003 05/18/2006 08/12/2004 05/18/2006	521.75 Average 17.00 0.02 1.81 U 19.27 U 4.05 0.01 0.85 1.49	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	246 <b>No. of</b> <b>Samples</b> 34 34 219 34 219 34 219 34 34 34 34 34 34 34 34 34	547.30 High 79.90 0.02 3.32 U 74.70 U 14.00 0.01 1.20 3.70 1.40	08/02/2021 Date 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019 12/19/2018 07/10/2017 05/18/2006 08/16/2011 09/15/2007 08/22/2002	484.10 Low 0.40 0.01 0.19 U 3.69 U 0.30 0.01 0.50 0.07 0.22	02/04/2016 Date 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003 06/10/2020 05/29/2003 05/18/2006 08/12/2004 05/18/2006 03/14/2008	521.75 <b>Average</b> 17.00 0.02 1.81 U 19.27 U 4.05 0.01 0.85 1.49 0.81	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	246 <b>No. of</b> <b>Samples</b> 34 34 219 34 219 34 219 34 34 34 34 34 34 34 34 34 34	547.30 High 79.90 0.02 3.32 U 74.70 U 14.00 0.01 1.20 3.70 1.40 8.48	08/02/2021 Date 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019 12/19/2018 07/10/2017 05/18/2006 08/16/2011 09/15/2007 08/22/2002 03/14/2008	484.10 Low 0.40 0.01 0.19 U 3.69 U 0.30 0.01 0.50 0.07 0.22 2.70	02/04/2016 Date 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003 06/10/2020 05/29/2003 05/18/2006 08/12/2004 05/18/2006 03/14/2008 12/19/2018	521.75 Average 17.00 0.02 1.81 U 19.27 U 4.05 0.01 0.85 1.49 0.81 3.35	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	246 <b>No. of</b> <b>Samples</b> 34 34 219 34 219 34 34 34 34 34 34 34 34 34 34	547.30 High 79.90 0.02 3.32 U 74.70 U 14.00 0.01 1.20 3.70 1.40 8.48 10.00	08/02/2021 Date 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019 12/19/2018 07/10/2017 05/18/2006 08/16/2011 09/15/2007 08/22/2002 03/14/2008 01/08/2008	484.10 Low 0.40 0.01 0.19 U 3.69 U 0.30 0.01 0.50 0.07 0.22 2.70 0.00	02/04/2016 Date 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003 06/10/2020 05/29/2003 05/18/2006 08/12/2004 05/18/2006 03/14/2008 12/19/2018 09/02/2015	521.75 Average 17.00 0.02 1.81 U 19.27 U 4.05 0.01 0.85 1.49 0.81 3.35 3.99	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	246 <b>No. of</b> <b>Samples</b> 34 34 219 34 219 34 34 34 34 34 34 34 34 34 34	547.30 High 79.90 0.02 3.32 U 74.70 U 14.00 0.01 1.20 3.70 1.40 8.48 10.00 U	08/02/2021 Date 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019 12/19/2018 07/10/2017 05/18/2006 08/16/2011 09/15/2007 08/22/2002 03/14/2008 01/08/2008 12/19/2018	484.10 Low 0.40 0.01 0.19 U 3.69 U 0.30 0.01 0.50 0.07 0.22 2.70 0.00 U	02/04/2016 Date 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003 06/10/2020 05/29/2003 05/18/2006 08/12/2004 05/18/2006 03/14/2008 12/19/2018 09/02/2015 06/10/2020	521.75 Average 17.00 0.02 1.81 U 19.27 U 4.05 0.01 0.85 1.49 0.81 3.35 3.99 U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Magnese, dissolved	246 <b>No. of</b> <b>Samples</b> 34 34 219 34 219 34 34 34 34 34 34 34 34 34 34	547.30 High 79.90 0.02 3.32 U 74.70 U 14.00 0.01 1.20 3.70 1.40 8.48 10.00 U U U	08/02/2021 Date 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019 12/19/2018 07/10/2017 05/18/2006 08/16/2011 09/15/2007 08/22/2002 03/14/2008 01/08/2008 12/19/2018 12/19/2018	484.10 Low 0.40 0.01 0.19 U 3.69 U 0.30 0.01 0.50 0.07 0.22 2.70 0.00 U U U U	02/04/2016 Date 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003 06/10/2020 05/18/2006 08/12/2004 05/18/2006 03/14/2008 12/19/2018 09/02/2015 06/10/2020 06/10/2020	521.75 Average 17.00 0.02 1.81 U 19.27 U 4.05 0.01 0.85 1.49 0.81 3.35 3.99 U U U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved	246 <b>No. of</b> <b>Samples</b> 34 34 219 34 219 34 34 34 34 34 34 34 34 34 34	547.30 High 79.90 0.02 3.32 U 74.70 U 14.00 0.01 1.20 3.70 1.40 8.48 10.00 U U 0.70	08/02/2021 Date 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019 12/19/2018 07/10/2017 05/18/2006 08/16/2011 09/15/2007 08/22/2002 03/14/2008 01/08/2008 12/19/2018 12/19/2018 08/19/2007	484.10 Low 0.40 0.01 0.19 U 3.69 U 0.30 0.01 0.50 0.07 0.22 2.70 0.00 U U 0.30	02/04/2016 Date 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003 06/10/2020 05/18/2006 03/14/2008 12/19/2018 09/02/2015 06/10/2020 06/10/2020 08/18/2010	521.75 Average 17.00 0.02 1.81 U 19.27 U 4.05 0.01 0.85 1.49 0.81 3.35 3.99 U U U 0.45	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	246 <b>No. of</b> <b>Samples</b> 34 34 219 34 219 34 34 34 34 34 34 34 34 34 34	547.30 High 79.90 0.02 3.32 U 74.70 U 14.00 0.01 1.20 3.70 1.40 8.48 10.00 U U U 0.70 0.20	08/02/2021 Date 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019 12/19/2018 07/10/2017 05/18/2006 08/16/2011 09/15/2007 08/22/2002 03/14/2008 01/08/2008 12/19/2018 12/19/2018 08/19/2007 09/23/2010	484.10 Low 0.40 0.01 0.19 U 3.69 U 0.30 0.01 0.50 0.07 0.22 2.70 0.00 U U 0.30 0.00 U U 0.30 0.02	02/04/2016 Date 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003 06/10/2020 05/29/2003 05/18/2006 03/14/2008 12/19/2018 09/02/2015 06/10/2020 06/10/2020 08/18/2010 05/18/2006	521.75 Average 17.00 0.02 1.81 U 19.27 U 4.05 0.01 0.85 1.49 0.81 3.35 3.99 U U U 0.45 0.13	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	246 <b>No. of</b> <b>Samples</b> 34 34 219 34 219 34 34 34 34 34 34 34 34 34 34	547.30 High 79.90 0.02 3.32 U 74.70 U 14.00 0.01 1.20 3.70 1.40 8.48 10.00 U U 0.70 0.20 150.00	08/02/2021 Date 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019 12/19/2018 07/10/2017 05/18/2006 08/16/2011 09/15/2007 08/22/2002 03/14/2008 01/08/2008 12/19/2018 12/19/2018 12/19/2018 08/19/2007 09/23/2010 02/13/2019	484.10 Low 0.40 0.01 0.19 U 3.69 U 0.30 0.01 0.50 0.07 0.22 2.70 0.00 U U 0.30 0.02 0.02 0.00	02/04/2016 Date 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003 06/10/2020 05/29/2003 05/18/2006 03/14/2008 12/19/2018 09/02/2015 06/10/2020 06/10/2020 06/10/2020 08/18/2010 05/18/2006 11/21/2008	521.75 Average 17.00 0.02 1.81 U 19.27 U 4.05 0.01 0.85 1.49 0.81 3.35 3.99 U U U 0.45 0.13 36.60	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	246 <b>No. of</b> <b>Samples</b> 34 34 219 34 219 34 34 34 34 34 34 34 34 34 34	547.30           High           79.90           0.02           3.32           U           74.70           U           14.00           0.01           1.20           3.70           1.40           8.48           10.00           U           0.70           0.20           150.00           0.01	08/02/2021 Date 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019 12/19/2018 07/10/2017 05/18/2006 08/16/2011 09/15/2007 08/22/2002 03/14/2008 12/19/2018 12/19/2018 12/19/2018 12/19/2018 12/19/2018 08/19/2007 09/23/2010 02/13/2019 08/22/2002	484.10 Low 0.40 0.01 0.19 U 3.69 U 0.30 0.01 0.50 0.07 0.22 2.70 0.00 U U 0.30 0.00 U U 0.30 0.02 0.00 0.00 0.00	02/04/2016 Date 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003 06/10/2020 05/29/2003 05/18/2006 03/14/2008 12/19/2018 09/02/2015 06/10/2020 05/18/2006 05/18/2006 05/18/2006 05/18/2006 05/18/2006 05/18/2006 05/12/2007 05/12/2007 05/18/2006 05/12/2007 05/12/2007 05/18/2006 05/12/2007	521.75 Average 17.00 0.02 1.81 U 19.27 U 4.05 0.01 0.85 1.49 0.81 3.35 3.99 U U U 0.45 0.13 36.60 0.01	Ft.           Units           mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	246 <b>No. of</b> <b>Samples</b> 34 34 219 34 219 34 34 34 34 34 34 34 34 34 34	547.30           High           79.90           0.02           3.32           U           74.70           U           14.00           0.01           1.20           3.70           1.40           8.48           10.00           U           0.70           0.20           150.00           0.01           79.00	08/02/2021 Date 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019 12/19/2018 07/10/2017 05/18/2006 08/16/2011 09/15/2007 08/22/2002 03/14/2008 12/19/2018 12/19/2018 12/19/2018 12/19/2018 12/19/2018 08/19/2007 09/23/2010 02/13/2019 08/22/2002 04/11/2006	484.10 Low 0.40 0.01 0.19 U 3.69 U 0.30 0.01 0.50 0.07 0.22 2.70 0.00 U U 0.30 0.02 0.02 0.00 0.00 8.90	02/04/2016 Date 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003 06/10/2020 05/29/2003 05/18/2006 03/14/2008 12/19/2018 09/02/2015 06/10/2020 05/29/2003 05/18/2006 03/14/2008 03/12/2007 05/18/2006 05/18/2006 05/18/2006 05/18/2006 05/18/2006 05/18/2006 05/18/2006 05/18/2006 05/18/2006 05/18/2006 05/18/2006 05/18/2006 05/18/2006 05/18/2006 05/18/2007 05/29/2003 05/29/2003	521.75 Average 17.00 0.02 1.81 U 19.27 U 4.05 0.01 0.85 1.49 0.81 3.35 3.99 U U 0.45 0.13 36.60 0.01 25.87	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved Sodium, dissolved	246 <b>No. of</b> <b>Samples</b> 34 34 219 34 219 34 34 34 34 34 34 34 34 34 34	547.30           High           79.90           0.02           3.32           U           74.70           U           14.00           0.01           1.20           3.70           1.40           8.48           10.00           U           0.70           0.20           150.00           0.01           79.00           39,200	08/02/2021 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019 12/19/2018 07/10/2017 05/18/2006 08/16/2011 09/15/2007 08/22/2002 03/14/2008 12/19/2018 12/19/2018 12/19/2018 12/19/2018 12/19/2018 08/19/2007 09/23/2010 02/13/2019 08/22/2002 04/11/2006 03/14/2008	484.10 Low 0.40 0.01 0.19 U 3.69 U 0.30 0.01 0.50 0.07 0.22 2.70 0.00 U U 0.30 0.02 0.00 0.02 0.00 0.00 8.90 450	02/04/2016 <b>Date</b> 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003 06/10/2020 05/29/2003 05/18/2006 03/14/2008 12/19/2018 09/02/2015 06/10/2020 05/29/2003 06/10/2020 06/10/2020 05/29/2003 06/10/2020 0/10/2020 06/10/2020 0/10/20	521.75 Average 17.00 0.02 1.81 U 19.27 U 4.05 0.01 0.85 1.49 0.81 3.35 3.99 U U 0.45 0.13 36.60 0.01 25.87 16,595	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved Strontium, dissolved	246 <b>No. of</b> <b>Samples</b> 34 34 219 34 219 34 34 34 34 34 34 34 34 34 34	547.30           High           79.90           0.02           3.32           U           74.70           U           14.00           0.01           1.20           3.70           1.40           0.01           1.20           3.70           1.40           0.01           1.20           3.70           1.40           8.48           10.00           U           0.70           0.20           150.00           0.01           79.00           39,200           0.70	08/02/2021 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019 12/19/2018 07/10/2017 05/18/2006 08/16/2011 09/15/2007 08/22/2002 03/14/2008 12/19/2018 12/19/2018 12/19/2018 12/19/2018 08/19/2007 09/23/2010 02/13/2019 08/22/2002 04/11/2006 03/14/2008 02/21/2005	484.10 Low 0.40 0.01 0.19 U 3.69 U 0.30 0.01 0.50 0.07 0.22 2.70 0.00 U U U 0.30 0.02 0.00 0.02 0.00 0.00 8.90 450 0.04	02/04/2016 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003 06/10/2020 05/29/2003 05/18/2006 03/14/2008 12/19/2018 09/02/2015 06/10/2020 05/29/2003 06/10/2020 05/29/2003 04/10/2013 05/29/2003	521.75 Average 17.00 0.02 1.81 U 19.27 U 4.05 0.01 0.85 1.49 0.81 3.35 3.99 U U 0.45 0.13 36.60 0.01 25.87 16,595 0.22	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Solium, dissolved	246 <b>No. of</b> <b>Samples</b> 34 34 219 34 219 34 34 34 34 34 34 34 34 34 34	547.30           High           79.90           0.02           3.32           U           74.70           U           14.00           0.01           1.20           3.70           1.40           8.48           10.00           U           0.70           0.20           150.00           0.01           79.00           39,200	08/02/2021 08/12/2004 06/10/2020 08/25/2005 12/19/2018 02/13/2019 12/19/2018 07/10/2017 05/18/2006 08/16/2011 09/15/2007 08/22/2002 03/14/2008 12/19/2018 12/19/2018 12/19/2018 12/19/2018 12/19/2018 08/19/2007 09/23/2010 02/13/2019 08/22/2002 04/11/2006 03/14/2008	484.10 Low 0.40 0.01 0.19 U 3.69 U 0.30 0.01 0.50 0.07 0.22 2.70 0.00 U U 0.30 0.02 0.00 0.02 0.00 0.00 8.90 450	02/04/2016 <b>Date</b> 03/14/2008 12/04/2012 08/19/2007 06/10/2020 05/29/2003 06/10/2020 05/29/2003 05/18/2006 03/14/2008 12/19/2018 09/02/2015 06/10/2020 05/29/2003 06/10/2020 06/10/2020 05/29/2003 06/10/2020 0/10/2020 06/10/2020 0/10/20	521.75 Average 17.00 0.02 1.81 U 19.27 U 4.05 0.01 0.85 1.49 0.81 3.35 3.99 U U 0.45 0.13 36.60 0.01 25.87 16,595	Ft. Units mg/l

#### Appx. Table A-22: DS-3 Annual Dissolution Surface Aquifer

DAUB & ASSOCIATES, INC. 20 AND A CONTRACTOR



 Devene et eve	No. of		1		1	1	1
Parameters Wet Chemistry	No. of Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3		9,560	07/06/2020	5,770	12/07/2017	7,147	mg/l
Carbonate as CaCO3		5,060	03/07/2018	2,110	07/06/2020	3,696	mg/l
Total Alkalinity as CaCO3		12,400	03/05/2020	9,650	08/09/2016	10,841	mg/l
Bromide		U	07/11/2017	<u> </u>	05/03/2021	10,041	mg/l
Cation-Anion Balance		2.60	02/11/2020	-13.30	07/06/2020	-4.16	%
Sum of Anions		272.00	03/05/2020	219.00	11/03/2020	240.10	meg/l
Sum of Cations	78	255.00	02/11/2020	188.00	12/01/2020	221.00	meg/l
Chemical Oxygen Demand	12	167.00	12/09/2014	44.00	04/05/2016	80.50	mg/l
Chloride		1,330	12/09/2014	448	11/03/2020	700	mg/l
Conductivity, Lab		19,800	12/09/2014	14,900	12/01/2020	16,967	µmhos
Fluoride		51.00	04/07/2020	26.80	09/08/2015	37.24	mg/l
Hardness as CaCO3		30.00	09/22/2016	<u></u> U	01/03/2017	6.63	mg/l
Nitrate as N, dissolved		11	07/11/2017	<u> </u>	05/03/2021	U	mg/l
Nitrate/Nitrite as N,	12	0.02	12/09/2014	0.02	12/09/2014	0.02	mg/l
Nitrite as N, dissolved		0.02	12/09/2014	0.02	12/09/2014	0.02	mg/l
Nitrogen, Ammonia		4.95	06/20/2023	0.58	03/14/2022	3.64	mg/l
Nitrogen, Organic		7.00	03/14/2022	0.80	07/11/2017	3.35	mg/l
Nitrogen, Total Kjeldahl	12	9.30	05/07/2019	4.70	07/11/2017	6.92	mg/l
pH, lab		9.50	03/01/2017	9.00	08/10/2020	9.26	units
Phosphate, total		7.00	09/27/2016	0.71	12/09/2014	4.92	mg/l
Phosphorus, total		2.20	09/27/2016	0.23	12/09/2014	1.58	mg/l
SAR in Water	55	1,600	02/11/2020	410.00	09/22/2016	1,040	none
SAR III Water Sulfate		370	12/09/2014	20.60	09/04/2020	86	mg/l
Sulfide		3.00	07/11/2017	0.30	04/05/2016	1.72	mg/l
Total Dissolved Solids		14,100	12/09/2014	11,200	12/01/2020	12,482	mg/l
Conductivity, Field		19,680	05/07/2019	13,820	05/01/2020	16,845	µmhos
pH, Field		9.70	08/09/2016	7.30	12/10/2018	8.97	units
	/4						
Temperature (°C), Field	74	20.40	06/20/2023	8.00	01/14/2020	12.18	(°C)
	74						
Temperature (°C), Field Water Level, Field	74 80	20.40 550.40	06/20/2023 09/08/2021	8.00 489.40	01/14/2020 10/06/2020	12.18 523.92	(°C) Ft.
Temperature (°C), Field Water Level, Field Parameters	74 80 <b>No. of</b>	20.40	06/20/2023	8.00	01/14/2020	12.18	(°C)
Temperature (°C), Field Water Level, Field Parameters Metals	74 80 No. of Samples	20.40 550.40 High	06/20/2023 09/08/2021 Date	8.00 489.40 Low	01/14/2020 10/06/2020 Date	12.18 523.92 Average	(°C) Ft. Units
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved	74 80 <b>No. of</b> Samples 12	20.40 550.40 High	06/20/2023 09/08/2021 <b>Date</b> 07/11/2017	8.00 489.40 Low	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021	12.18 523.92 Average	(°C) Ft. Units mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	74 80 <b>No. of</b> <u>Samples</u> 12 12	20.40 550.40 High U 0.01	06/20/2023 09/08/2021 <b>Date</b> 07/11/2017 12/09/2014	8.00 489.40 Low U U	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014	12.18 523.92 Average U 0.01	(°C) Ft. Units mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	74 80 <b>No. of</b> <u>Samples</u> 12 12 12	20.40 550.40 High	06/20/2023 09/08/2021 <b>Date</b> 07/11/2017 12/09/2014 10/04/2016	8.00 489.40 Low U U 0.05	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016	12.18 523.92 Average U 0.01 0.26	(°C) Ft. Units mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	74 80 <b>No. of</b> <u>Samples</u> 12 12 12 12 12	20.40 550.40 High U 0.01 0.46 U	06/20/2023 09/08/2021 <b>Date</b> 07/11/2017 12/09/2014 10/04/2016 10/04/2016	8.00 489.40 Low U U 0.05 U	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2016	12.18 523.92 Average U 0.01 0.26 U	(°C) Ft. Units mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	74 80 <b>No. of</b> <u>Samples</u> 12 12 12 12 12 77	20.40 550.40 High U 0.01 0.46	06/20/2023 09/08/2021 <b>Date</b> 07/11/2017 12/09/2014 10/04/2016 10/04/2016 06/20/2023	8.00 489.40 Low U U 0.05	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2017	12.18 523.92 Average U 0.01 0.26	(°C) Ft. Units mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	74 80 <b>No. of</b> <u>Samples</u> 12 12 12 12 12 77 12	20.40 550.40 High U 0.01 0.46 U 8.66 U	06/20/2023 09/08/2021 <b>Date</b> 07/11/2017 12/09/2014 10/04/2016 10/04/2016 06/20/2023 07/11/2017	8.00 489.40 Low U U 0.05 U 6.20 U	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2017 05/03/2021	12.18 523.92 <b>Average</b> U 0.01 0.26 U 7.60 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	74 80 <b>No. of</b> <b>Samples</b> 12 12 12 12 12 12 77 12 77	20.40 550.40 High U 0.01 0.46 U 8.66 U 7.34	06/20/2023 09/08/2021 <b>Date</b> 07/11/2017 12/09/2014 10/04/2016 10/04/2016 06/20/2023 07/11/2017 06/07/2021	8.00 489.40 Low U U 0.05 U 6.20	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2017 05/03/2021 03/25/2015	12.18 523.92 <b>Average</b> U 0.01 0.26 U 7.60	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	74 80 <b>No. of</b> <b>Samples</b> 12 12 12 12 12 77 12 77 12 77 12	20.40 550.40 High U 0.01 0.46 U 8.66 U	06/20/2023 09/08/2021 <b>Date</b> 07/11/2017 12/09/2014 10/04/2016 10/04/2016 06/20/2023 07/11/2017 06/07/2021 07/11/2017	8.00 489.40 Low U U U 0.05 U 6.20 U U U	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2016 10/04/2017 05/03/2021 03/25/2015 05/03/2021	12.18 523.92 <b>Average</b> U 0.01 0.26 U 7.60 U 1.99	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	74 80 No. of Samples 12 12 12 12 12 77 12 77 12 77 12 12 12	20.40 550.40 High U 0.01 0.46 U 8.66 U 7.34 U U U	06/20/2023 09/08/2021 <b>Date</b> 07/11/2017 12/09/2014 10/04/2016 10/04/2016 06/20/2023 07/11/2017 06/07/2021 07/11/2017	8.00 489.40 Low U U U 0.05 U 6.20 U 0 U U U U	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2017 05/03/2021 03/25/2015 05/03/2021 05/03/2021	12.18 523.92 <b>Average</b> U 0.01 0.26 U 7.60 U 1.99 U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	74 80 No. of Samples 12 12 12 12 12 77 12 77 12 77 12 12 12 12	20.40 550.40 High U 0.01 0.46 U 8.66 U 7.34 U	06/20/2023 09/08/2021 <b>Date</b> 07/11/2017 12/09/2014 10/04/2016 10/04/2016 06/20/2023 07/11/2017 06/07/2021 07/11/2017 07/11/2017 12/09/2014	8.00 489.40 Low U U U 0.05 U 6.20 U U U U U U U U 0.20	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2017 05/03/2021 03/25/2015 05/03/2021 05/03/2021 09/22/2016	12.18 523.92 <b>Average</b> U 0.01 0.26 U 7.60 U 1.99 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	74 80 No. of Samples 12 12 12 12 12 77 12 77 12 77 12 77 12 12 12 12 12	20.40 550.40 High U 0.01 0.46 U 8.66 U 7.34 U U U 0.60 U	06/20/2023 09/08/2021 <b>Date</b> 07/11/2017 12/09/2014 10/04/2016 10/04/2016 06/20/2023 07/11/2017 06/07/2021 07/11/2017 12/09/2014 05/07/2019	8.00 489.40 U U U U 0.05 U 6.20 U U U U U U U U U U U U U U U U U U	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2017 05/03/2021 03/25/2015 05/03/2021 05/03/2021 09/22/2016 05/07/2019	12.18 523.92 <b>Average</b> U 0.01 0.26 U 7.60 U 1.99 U U U 0.38 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lead, dissolved	74 80 No. of Samples 12 12 12 12 12 77 12 77 12 12 12 12 12 12 12 12 12	20.40 550.40 High U 0.01 0.46 U 8.66 U 7.34 U U U 0.60 U 2.95	06/20/2023 09/08/2021 07/11/2017 12/09/2014 10/04/2016 10/04/2016 06/20/2023 07/11/2017 06/07/2021 07/11/2017 12/09/2014 05/07/2019 06/20/2023	8.00 489.40 U U U 0.05 U 6.20 U U U U U U U 0.20 U 1.94	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2017 05/03/2021 03/25/2015 05/03/2021 05/03/2021 05/03/2021 09/22/2016 05/07/2019 09/27/2016	12.18 523.92 <b>Average</b> U 0.01 0.26 U 7.60 U 1.99 U U U 0.38 U 2.23	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved	74 80 No. of Samples 12 12 12 12 12 77 12 77 12 12 12 12 12 12 12 12 12 12 12 77	20.40 550.40 High U 0.01 0.46 U 8.66 U 7.34 U U 0.60 U 2.95 4.00	06/20/2023 09/08/2021 07/11/2017 12/09/2014 10/04/2016 10/04/2016 06/20/2023 07/11/2017 06/07/2021 07/11/2017 12/09/2014 05/07/2019 06/20/2023 03/25/2015	8.00 489.40 U U U 0.05 U 6.20 U U U U U U U U U 0.20 U 1.94 U	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2016 10/04/2017 05/03/2021 03/25/2015 05/03/2021 05/03/2021 05/03/2021 05/03/2021 09/22/2016 05/07/2019 09/27/2016 09/08/2015	12.18 523.92 <b>Average</b> U 0.01 0.26 U 7.60 U 1.99 U U 0.38 U 2.23 2.71	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lead, dissolved Magnesium, dissolved	74 80 No. of Samples 12 12 12 12 12 77 12 77 12 12 12 12 12 12 12 12 12 12 12 12 12	20.40 550.40 High U 0.01 0.46 U 8.66 U 8.66 U 7.34 U U 0.60 U 2.95 4.00 U	06/20/2023 09/08/2021 07/11/2017 12/09/2014 10/04/2016 10/04/2016 06/20/2023 07/11/2017 06/07/2021 07/11/2017 12/09/2014 05/07/2019 06/20/2023 03/25/2015 07/11/2017	8.00 489.40 U U U 0.05 U 6.20 U U U U U U U U U U U 1.94 U U U	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2016 10/04/2017 05/03/2021 03/25/2015 05/03/2021 09/22/2016 05/07/2019 09/27/2016 09/08/2015 05/03/2021	12.18 523.92 <b>Average</b> U 0.01 0.26 U 7.60 U 1.99 U U 0.38 U 2.23 2.71 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved	74 80 No. of Samples 12 12 12 12 12 77 12 12 12 12 12 12 12 12 12 12 12 12 12	20.40 550.40 High U 0.01 0.46 U 8.66 U 8.66 U 7.34 U U 0.60 U 2.95 4.00 U U	06/20/2023 09/08/2021 07/11/2017 12/09/2014 10/04/2016 10/04/2016 06/20/2023 07/11/2017 06/07/2021 07/11/2017 12/09/2014 05/07/2019 06/20/2023 03/25/2015 07/11/2017	8.00 489.40 U U U 0.05 U 6.20 U U U U U U U U U 0.20 U 1.94 U U U U U U U U	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2016 10/04/2017 05/03/2021 03/25/2015 05/03/2021 09/22/2016 05/07/2019 09/27/2016 09/08/2015 05/03/2021	12.18 523.92 <b>Average</b> U 0.01 0.26 U 7.60 U 1.99 U U 0.38 U 2.23 2.71 U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved	74 80 No. of Samples 12 12 12 12 12 77 12 77 12 12 12 12 12 12 12 12 12 12 12 12 12	20.40 550.40 High U 0.01 0.46 U 8.66 U 8.66 U 7.34 U U 0.60 U 2.95 4.00 U U U U U	06/20/2023 09/08/2021 09/08/2021 07/11/2017 12/09/2014 10/04/2016 06/20/2023 07/11/2017 06/07/2021 07/11/2017 12/09/2014 05/07/2019 06/20/2023 03/25/2015 07/11/2017 07/11/2017	8.00 489.40 U U U 0.05 U 6.20 U U U U U U U U U U U 1.94 U U U	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2016 10/04/2017 05/03/2021 03/25/2015 05/03/2021 09/22/2016 05/03/2021 05/03/2021 05/03/2021	12.18 523.92 <b>Average</b> U 0.01 0.26 U 7.60 U 1.99 U U 0.38 U 2.23 2.71 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved	74 80 No. of Samples 12 12 12 12 12 77 12 77 12 12 12 12 12 12 12 12 12 12 12 12 12	20.40 550.40 High U 0.01 0.46 U 8.66 U 7.34 U U 0.60 U 2.95 4.00 U U U U U U U U	06/20/2023 09/08/2021 09/08/2021 07/11/2017 12/09/2014 10/04/2016 10/04/2016 06/20/2023 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017	8.00 489.40 U U U 0.05 U 6.20 U U U U U U U U U U U U U U U U U U U	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2017 05/03/2021 03/25/2015 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021	12.18 523.92 <b>Average</b> U 0.01 0.26 U 7.60 U 1.99 U U U 0.38 U 2.23 2.71 U U U U U U U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	74 80 No. of Samples 12 12 12 12 12 77 12 12 12 12 12 12 12 12 12 12 12 12 12	20.40 550.40 High U 0.01 0.46 U 8.66 U 7.34 U U 0.60 U U 2.95 4.00 U U U U U U U U U U U U U U U U U U	06/20/2023 09/08/2021 09/08/2021 07/11/2017 12/09/2014 10/04/2016 10/04/2016 06/20/2023 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 12/09/2014	8.00 489.40 U U U 0.05 U 6.20 U U U U U U U U U U U U U U U U U U U	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2017 05/03/2021 03/25/2015 05/03/2021 09/22/2016 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 12/01/2020	12.18 523.92 <b>Average</b> U 0.01 0.26 U 7.60 U 1.99 U U U 0.38 U 2.23 2.71 U U U U U U U U T2.06	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved Selenium, dissolved	74 80 No. of Samples 12 12 12 12 12 77 12 12 12 12 12 12 12 12 12 12 12 12 12	20.40 550.40 High U 0.01 0.46 U 8.66 U 7.34 U 0.60 U 2.95 4.00 U 2.95 4.00 U U U U U U U U U U U U U U U U U U	06/20/2023 09/08/2021 07/11/2017 12/09/2014 10/04/2016 10/04/2016 06/20/2023 07/11/2017 07/11/2017 07/11/2017 06/20/2023 03/25/2015 07/11/2017 07/11/2017 07/11/2017 07/11/2017 12/09/2014 09/22/2016	8.00 489.40 U U U 0.05 U 6.20 U U U U U U U U U U U U U U U U U U U	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2016 10/04/2017 05/03/2021 03/25/2015 05/03/2021 09/22/2016 09/08/2015 05/03/2021 05/03/2021 05/03/2021 05/03/2021 12/01/2020 09/22/2016	12.18 523.92 <b>Average</b> U 0.01 0.26 U 7.60 U 1.99 U U 0.38 U 2.23 2.71 U U U U U U U U U U U U U U U U U U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	74 80 No. of Samples 12 12 12 12 12 77 12 12 12 12 12 12 12 12 12 12 12 12 12	20.40 550.40 High U 0.01 0.46 U 8.66 U 7.34 U 0.60 U 2.95 4.00 U U U U U U U U U U U U U U U U U U	06/20/2023 09/08/2021 09/08/2021 07/11/2017 12/09/2014 10/04/2016 10/04/2016 06/20/2023 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 12/09/2014 09/22/2016 07/11/2017	8.00 489.40 U U U U 0.05 U 6.20 U U U U U U U U U U U U U U U U U U U	01/14/2020 10/06/2020 05/03/2021 12/09/2014 04/05/2016 10/04/2016 10/04/2017 05/03/2021 03/25/2015 05/03/2021 09/22/2016 09/08/2015 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 12/01/2020 09/22/2016 01/27/2016	12.18 523.92 <b>Average</b> U 0.01 0.26 U 7.60 U 1.99 U U 0.38 U 2.23 2.71 U U U U U U U U 2.23 2.71 U U U 2.23 2.71 U U U 2.23 2.71	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	74 80 No. of Samples 12 12 12 12 12 77 12 12 12 12 12 12 12 12 12 12 12 12 12	20.40 550.40 High U 0.01 0.46 U 8.66 U 7.34 U 0.60 U 2.95 4.00 U U U U U U U U U U U U U	06/20/2023 09/08/2021 07/11/2017 12/09/2014 10/04/2016 10/04/2016 06/20/2023 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 12/09/2014 09/22/2016 07/11/2017 02/11/2020	8.00 489.40 U U U 0.05 U 6.20 U U U U U U U U U U U U U U U U U U U	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2016 10/04/2017 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 12/01/2020 09/22/2016 01/27/2016 12/01/2020	12.18 523.92 U 0.01 0.26 U 7.60 U 1.99 U U U U U U U U U U U U U U U U U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnese, dissolved Magnese, dissolved Magnese, dissolved Magnese, dissolved Magnesium, dissolved Selenium, dissolved Silica, dissolved Silica, dissolved Sodium, dissolved	74 80 No. of Samples 12 12 12 12 77 12 77 12 12 12 12 12 12 12 12 12 12 12 12 12	20.40 550.40 High U 0.01 0.46 U 8.66 U 7.34 U 0.60 U 2.95 4.00 U U U U U U U U U U U 113.00 U 34.00 5,750 0.48	06/20/2023 09/08/2021 07/11/2017 12/09/2014 10/04/2016 10/04/2016 06/20/2023 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017	8.00 489.40 U U U U 0.05 U 6.20 U U U U U U U U U U U U U U U U U U U	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2017 05/03/2021 03/25/2015 05/03/2021	12.18 523.92 <b>Average</b> U 0.01 0.26 U 7.60 U 1.99 U U 0.38 U 2.23 2.71 U U U U U 2.23 2.71 U U U 2.23 2.71 U U 2.23 2.71 U U 1.99 U 1.01 0.38 U 2.23 2.71 U 1.91 U 1.93 U 1.93 U 1.93 U 1.93 U 1.93 U 1.93 U 1.93 U 1.93 U 1.93 U 1.99 U 1.93 U 1.93 U 1.93 U 1.93 U 1.93 U 1.93 U 1.93 U 1.91 U 1.93 U 1	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	74 80 No. of Samples 12 12 12 12 12 77 12 12 12 12 12 12 12 12 12 12 12 12 12	20.40 550.40 High U 0.01 0.46 U 8.66 U 7.34 U 0.60 U 2.95 4.00 U U U U U U U U U U U U U	06/20/2023 09/08/2021 07/11/2017 12/09/2014 10/04/2016 10/04/2016 06/20/2023 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 07/11/2017 12/09/2014 09/22/2016 07/11/2017 02/11/2020	8.00 489.40 U U U 0.05 U 6.20 U U U U U U U U U U U U U U U U U U U	01/14/2020 10/06/2020 <b>Date</b> 05/03/2021 12/09/2014 04/05/2016 10/04/2016 10/04/2017 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 12/01/2020 09/22/2016 01/27/2016 12/01/2020	12.18 523.92 U 0.01 0.26 U 7.60 U 1.99 U U U U U U U U U U U U U U U U U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Appx. Table A-23: DS-6 Annual Dissolution Surface Aquifer

DAUB & ASSOCIATES, INC. 2013 Start And Charles Contraction



	No. of						
Parameters Wet Chemistry	Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	85	33,500	04/08/2019	9,000	12/07/2020	24,002	mg/l
Carbonate as CaCO3	85	16,600	08/02/2016	63	12/07/2020	4,683	mg/l
Total Alkalinity as CaCO3	85	41,300	07/07/2016	9,060	12/07/2020	28,573	mg/l
Bromide	11	<u> </u>	05/07/2019	<u> </u>	05/04/2021	11	mg/l
Cation-Anion Balance	85	21.30	03/05/2020	-15.70	10/06/2020	-2.04	%
Sum of Anions	85	3,360	12/17/2014	302	12/07/2020	1,241	meq/l
Sum of Cations	85	3,230	12/17/2014	293	03/15/2022	1,180	meq/l
Chemical Oxygen Demand	11	3,630	11/05/2015	110	06/20/2023	1,495	mg/l
Chloride	85	96,000	12/30/2014	3,850	10/12/2021	23,781	mg/l
Conductivity, Lab	85	207,000	12/17/2014	24,000	11/02/2020	73,368	umhos
Fluoride	85	106.00	12/10/2019	38.50	10/06/2020	63.93	mg/l
Hardness as CaCO3	85	82.40	12/16/2015	0.00	12/30/2014	28.53	mg/l
Nitrate as N, dissolved	11	0.03	05/07/2020	0.03	05/07/2020	0.03	mg/l
Nitrate/Nitrite as N,	11	0.03	05/07/2020	0.03	05/07/2020	0.03	mg/l
Nitrite as N, dissolved	11	<u> </u>	05/07/2019	<u> </u>	05/04/2021	<u> </u>	mg/l
Nitrogen, Ammonia	11	40.40	12/17/2014	3.33	05/04/2021	13.22	mg/l
Nitrogen, Organic	11	7.00	05/07/2019	3.00	05/04/2021	4.36	mg/l
Nitrogen, Total Kjeldahl	11	33.00	12/30/2014	1.10	11/05/2015	11.42	mg/l
pH, lab	85	9.10	05/06/2015	8.30	04/08/2020	8.61	units
Phosphate, total	11	71.00	11/05/2015	5.60	06/20/2023	31.74	mg/l
Phosphorus, total	11	23.00	11/05/2015	1.80	06/20/2023	10.27	mg/l
SAR in Water	31	7,600	06/08/2016	650.00	06/20/2023	2,410	none
Sulfate	85	480	12/30/2014	110.00	07/11/2017	350	mg/l
Sulfide	11	4.80	05/07/2019	1.30	12/17/2014	2.60	mg/l
Total Dissolved Solids	85	189,676	12/17/2014	16,600	11/05/2021	68,103	mg/l
Conductivity, Field	83	186,700	12/17/2014	23,110	06/20/2023	74,087	umhos
pH, Field	83	9.20	03/10/2016	7.10	12/17/2014	8.29	units
Temperature (°C), Field	83	20.70	06/20/2023	7.20	02/09/2021	12.98	(°C)
Water Level, Field	89	643.10	12/12/2014	478.76	11/09/2016	504.60	Ft.
	00	010.10		1/0./0	11/00/2010	001.00	
Parameters	No. of	Llinda	Dete	Low	Dete	A	Linite
	Samples	High	Date	Low	Date	Average	Units
Aluminum, dissolved	11		05/07/0040		05/04/0004		
	11	U	05/07/2019	U	05/04/2021	U	mg/i
	11	U U	05/07/2019 05/07/2019	<u> </u>	05/04/2021 05/04/2021	U U	mg/l mg/l
Arsenic, dissolved Arsenic, dissolved Barium, dissolved							mg/l
Arsenic, dissolved	11	U	05/07/2019	U	05/04/2021	U	
Arsenic, dissolved Barium, dissolved	11 11	U 1.90	05/07/2019 07/11/2017	U 0.40	05/04/2021 11/05/2015	U 1.03	mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved	11 11 11	U 1.90 U	05/07/2019 07/11/2017 05/07/2019	U 0.40 U	05/04/2021 11/05/2015 05/04/2021	U 1.03 U	mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	11 11 11 85	U 1.90 U 66.00	05/07/2019 07/11/2017 05/07/2019 09/09/2015	U 0.40 U 7.10	05/04/2021 11/05/2015 05/04/2021 01/09/2018	U 1.03 U 23.53	mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	11 11 11 85 11	U 1.90 U 66.00 U	05/07/2019 07/11/2017 05/07/2019 09/09/2015 05/07/2019	U 0.40 U 7.10 U	05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021	U 1.03 U 23.53 U	mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	11 11 85 11 85 11 85 11 11	U 1.90 U 66.00 U 30.00 U U	05/07/2019 07/11/2017 05/07/2019 09/09/2015 05/07/2019 05/06/2015	U 0.40 U 7.10 U 0.00 U U	05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021	U 1.03 U 23.53 U 6.97	mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	11 11 85 11 85 11 11 11 11	U 1.90 U 66.00 U 30.00 U	05/07/2019 07/11/2017 05/07/2019 09/09/2015 05/07/2019 05/06/2015 05/07/2019	U 0.40 U 7.10 U 0.00 U	05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021	U 1.03 U 23.53 U 6.97 U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	11 11 85 11 85 11 85 11 11	U 1.90 U 66.00 U 30.00 U U	05/07/2019 07/11/2017 05/07/2019 09/09/2015 05/07/2019 05/06/2015 05/07/2019 05/07/2019	U 0.40 U 7.10 U 0.00 U U	05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021	U 1.03 U 23.53 U 6.97 U U U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	11 11 85 11 85 11 11 11 11	U 1.90 U 66.00 U 30.00 U U 5.00	05/07/2019 07/11/2017 05/07/2019 09/09/2015 05/07/2019 05/06/2015 05/07/2019 05/07/2019 12/30/2014	U 0.40 U 7.10 U 0.00 U U 0.64	05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021 03/15/2022	U 1.03 U 23.53 U 6.97 U U 2.88	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	11 11 85 11 85 11 11 11 11 11	U 1.90 U 66.00 U 30.00 U U 5.00 U	05/07/2019 07/11/2017 05/07/2019 09/09/2015 05/07/2019 05/06/2015 05/07/2019 05/07/2019 12/30/2014 05/07/2019	U 0.40 U 7.10 U 0.00 U U 0.64 U	05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021 03/15/2022 05/04/2021	U 1.03 U 23.53 U 6.97 U U 2.88 U	mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	11 11 85 11 85 11 11 11 11 11 85 11	U 1.90 U 66.00 U 30.00 U U 5.00 U 2.73	05/07/2019 07/11/2017 05/07/2019 09/09/2015 05/07/2019 05/06/2015 05/07/2019 05/07/2019 12/30/2014 05/07/2019 06/20/2023	U 0.40 U 7.10 U 0.00 U U 0.64 U 1.00 2.16 U	05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 03/15/2022 05/04/2021 12/30/2014	U 1.03 U 23.53 U 6.97 U U 2.88 U 2.88 U 2.10 12.23 U	mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	11 11 85 11 85 11 11 11 11 11 85	U 1.90 U 66.00 U 30.00 U U 5.00 U 2.73 20.00	05/07/2019 07/11/2017 05/07/2019 05/07/2019 05/06/2015 05/07/2019 05/07/2019 12/30/2014 05/07/2019 06/20/2023 06/17/2015	U 0.40 U 7.10 U 0.00 U U 0.64 U 1.00 2.16	05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021 03/15/2022 05/04/2021 12/30/2014 10/12/2021	U 1.03 U 23.53 U 6.97 U U 2.88 U 2.10 12.23	mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved	11         11         85         11         85         11	U 1.90 U 66.00 U 30.00 U U 5.00 U 2.73 20.00 U	05/07/2019 07/11/2017 05/07/2019 05/07/2019 05/06/2015 05/07/2019 05/07/2019 12/30/2014 05/07/2019 06/20/2023 06/17/2015 05/07/2019 05/07/2019 04/05/2016	U 0.40 U 7.10 U 0.00 U U 0.64 U 1.00 2.16 U	05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021 12/30/2014 10/12/2021 05/04/2021 05/04/2021 05/04/2021 04/05/2016	U 1.03 U 23.53 U 6.97 U U 2.88 U 2.88 U 2.10 12.23 U	mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved	11 11 85 11 85 11 11 11 11 11 85 11 11 11	U 1.90 U 66.00 U 30.00 U U 5.00 U 2.73 20.00 U U U U	05/07/2019 07/11/2017 05/07/2019 05/07/2019 05/06/2015 05/07/2019 05/07/2019 12/30/2014 05/07/2019 06/20/2023 06/17/2015 05/07/2019 05/07/2019	U 0.40 U 7.10 U 0.00 U U 0.64 U 1.00 2.16 U U	05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021 12/30/2014 10/12/2021 05/04/2021 05/04/2021	U 1.03 U 23.53 U 6.97 U U 2.88 U 2.10 12.23 U U U U	mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	11         11         85         11         85         11	U 1.90 U 66.00 U 30.00 U U 5.00 U 2.73 20.00 U U 2.00	05/07/2019 07/11/2017 05/07/2019 05/07/2019 05/06/2015 05/07/2019 05/07/2019 12/30/2014 05/07/2019 06/20/2023 06/17/2015 05/07/2019 05/07/2019 04/05/2016	U 0.40 U 7.10 U 0.00 U U 0.64 U 1.00 2.16 U U	05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021 12/30/2014 10/12/2021 05/04/2021 05/04/2021 05/04/2021 04/05/2016	U 1.03 U 23.53 U 6.97 U U 2.88 U 2.10 12.23 U U 2.00	mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved	11         11         85         11         85         11         85         11	U 1.90 U 66.00 U 30.00 U U 5.00 U 2.73 20.00 U U 2.00 U 140.00 U	05/07/2019 07/11/2017 05/07/2019 05/07/2019 05/06/2015 05/07/2019 05/07/2019 12/30/2014 05/07/2019 06/20/2023 06/17/2015 05/07/2019 05/07/2019 04/05/2016 05/07/2019	U 0.40 U 7.10 U 0.00 U U 0.64 U 1.00 2.16 U U 2.00 U 14.20 U	05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 03/15/2022 05/04/2021 05/04/2021 05/04/2021 05/04/2021 04/05/2016 05/04/2021 03/15/2022 05/04/2021	U 1.03 U 23.53 U 6.97 U U 2.88 U 2.10 12.23 U U 2.00 U U 2.00 U	mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	11         11         85         11         85         11         85	U 1.90 U 66.00 U 30.00 U U 5.00 U 2.73 20.00 U U 2.00 U 140.00	05/07/2019 07/11/2017 05/07/2019 05/07/2019 05/06/2015 05/07/2019 05/07/2019 12/30/2014 05/07/2019 06/20/2023 06/17/2019 05/07/2019 05/07/2019 04/05/2016 05/07/2019 09/09/2015 05/07/2019 06/08/2021	U 0.40 U 7.10 U 0.00 U U 0.64 U 1.00 2.16 U U 2.00 U 14.20	05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 03/15/2022 05/04/2021 05/04/2021 05/04/2021 05/04/2021 04/05/2016 05/04/2021 03/15/2022 05/04/2021	U 1.03 U 23.53 U 6.97 U U 2.88 U 2.10 12.23 U U 2.00 U 2.00 U 45.77	mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	11         11         85         11         85         11         85         11	U 1.90 U 66.00 U 30.00 U U 5.00 U 2.73 20.00 U U 2.00 U 140.00 U	05/07/2019 07/11/2017 05/07/2019 05/07/2019 05/06/2015 05/07/2019 05/07/2019 12/30/2014 05/07/2019 06/20/2023 06/17/2019 05/07/2019 05/07/2019 04/05/2016 05/07/2019 09/09/2015 05/07/2019	U 0.40 U 7.10 U 0.00 U U 0.64 U 1.00 2.16 U U 2.00 U 14.20 U	05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021 05/04/2021 12/30/2014 10/12/2021 05/04/2021 05/04/2021 04/05/2016 05/04/2021 03/15/2022	U 1.03 U 23.53 U 6.97 U U 2.88 U 2.10 12.23 U U 2.00 U 45.77 U	mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	11         11         85         11         85         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         85	U 1.90 U 66.00 U 30.00 U U 5.00 U 2.73 20.00 U U 2.00 U 140.00 U 55.00	05/07/2019 07/11/2017 05/07/2019 05/07/2019 05/06/2015 05/07/2019 05/07/2019 12/30/2014 05/07/2019 06/20/2023 06/17/2019 05/07/2019 05/07/2019 04/05/2016 05/07/2019 09/09/2015 05/07/2019 06/08/2021	U 0.40 U 7.10 U 0.00 U U 0.64 U 1.00 2.16 U U 2.00 U 14.20 U 14.20 U 16.00	05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 04/05/2016 05/04/2021 03/15/2022 05/04/2021 03/15/2022 05/04/2021 09/11/2017	U 1.03 U 23.53 U 6.97 U U 2.88 U 2.10 12.23 U U 2.00 U 2.00 U 45.77 U 22.89	mg/l           mg/l
Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	11         11         85         11         85         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         85         11         85         85	U 1.90 U 66.00 U 30.00 U U 5.00 U 2.73 20.00 U U 2.00 U 140.00 U 55.00 73,200	05/07/2019 07/11/2017 05/07/2019 05/07/2019 05/06/2015 05/07/2019 05/07/2019 12/30/2014 05/07/2019 06/20/2023 06/17/2019 05/07/2019 05/07/2019 05/07/2019 05/07/2019 05/07/2019 09/09/2015 05/07/2019 06/08/2021 12/17/2014	U 0.40 U 7.10 U 0.00 U U 0.64 U 1.00 2.16 U 2.00 U 2.00 U 14.20 U 16.00 6,630	05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 04/05/2016 05/04/2021 03/15/2022 05/04/2021 09/11/2017 03/15/2022	U 1.03 U 23.53 U 6.97 U U 2.88 U 2.88 U 2.10 12.23 U U 2.00 U 45.77 U 22.89 26,784	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Appx. Table A-24: DS-7 Annual Dissolution Surface Aquifer

DAUB & ASSOCIATES, INC. 



Deremetere	No. of	[	T	[			
Parameters Wet Chemistry	No. of Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3		23,300	01/15/2015	16,000	04/07/2022	18,964	mg/l
Carbonate as CaCO3		9,590	06/25/2019	4,200	01/15/2015	7,310	mg/l
Total Alkalinity as CaCO3		27,500	01/15/2015	24,600	04/07/2022	26,282	mg/l
Bromide		<u> </u>	06/25/2019	1	01/15/2015	<u>20,202</u>	mg/l
Cation-Anion Balance		-1.40	06/25/2019	-9.50	01/08/2015	-4.06	%
Sum of Anions		586.00	06/03/2020	530.00	04/07/2022	561.18	meq/l
Sum of Cations		552.00	06/25/2019	477.00	01/08/2015	517.45	meq/l
Chemical Oxygen Demand		731.00	01/15/2015	95.00	09/28/2017	214.00	mg/l
Chloride		1,080	06/25/2019	868	06/12/2023	978	mg/l
Conductivity, Lab		37,100	06/19/2018	600	06/12/2023	31,900	μmhos
Fluoride		83.70	06/08/2021	61.80	06/19/2018	70.51	mg/l
Hardness as CaCO3		18.00	06/12/2023	7.00	04/07/2022	12.50	mg/l
Nitrate as N, dissolved		0.0300	01/15/2015	0.0000	01/08/2015	0.0150	mg/l
Nitrate/Nitrite as N,	11	0.0300	01/15/2015	0.0000	01/08/2015	0.0150	mg/l
Nitrite as N, dissolved		0.0130	06/12/2023	0.0000	01/08/2015	0.0058	mg/l
Nitrogen, Ammonia		13.00	06/12/2023	5.93	06/08/2021	8.74	mg/l
Nitrogen, Organic		10.00	06/08/2021	1.30	06/19/2018	5.30	mg/l
Nitrogen, Total Kjeldahl		15.60	06/08/2021	6.80	06/03/2020	12.22	mg/l
pH, lab		9.30	04/07/2022	8.40	06/12/2023	9.02	units
Phosphate, total		25.00	06/25/2019	15.00	12/15/2015	19.55	mg/l
Phosphorus, total		8.20	06/25/2019	4.90	12/15/2015	6.33	mg/l
SAR in Water		1,900	04/07/2022	1,200.00	06/12/2023	1,550	none
Sulfate		368	06/25/2019	100.00	01/08/2015	229	mg/l
Sulfide		2.89	04/07/2022	0.60	04/05/2016	1.85	mg/l
Total Dissolved Solids		30,100	06/25/2019	27,700	04/07/2022	29,018	ma/l
Conductivity, Field		39,750	12/15/2015	31,210	04/05/2016	34,254	μmhos
pH, Field		9.23	06/19/2018	8.20	10/06/2014	8.91	units
Temperature (°C), Field							
		1520	06/08/2021	1120	10/06/2014	13.39	(°(.)
		15.20 505.00	06/08/2021	11.20 81.00	10/06/2014	13.39 459.92	(°C) Ft
Water Level, Field		15.20 505.00	06/08/2021	81.00	10/06/2014 01/08/2015	459.92	(°C) Ft.
Water Level, Field		505.00	06/11/2023	81.00	01/08/2015	459.92	Ft.
	11 <b>No. of</b>						
Water Level, Field Parameters Metals	11 No. of Samples	505.00	06/11/2023	81.00	01/08/2015 Date	459.92	Ft.
Water Level, Field Parameters	11 No. of Samples 11	505.00 <b>High</b>	06/11/2023 Date	81.00 Low	01/08/2015	459.92 Average	Ft.
Water Level, Field Parameters Metals Aluminum, dissolved	11 <b>No. of</b> Samples 11 11	505.00 <b>High</b> U	06/11/2023 Date 01/15/2015	81.00 <b>Low</b> U	01/08/2015 Date 04/05/2016	459.92 Average	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	11 No. of Samples 11 11 11	505.00 High U 0.07	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015	81.00 Low U 0.01	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023	459.92 Average U 0.03	Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	11 No. of Samples 11 11 11 11	505.00 High U 0.07 1.00	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015	81.00 Low U 0.01 0.21	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016	459.92 Average U 0.03 0.52	Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	11 No. of Samples 11 11 11 11 11	505.00 High U 0.07 1.00 U	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023	81.00 Low U 0.01 0.21 U	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016	459.92 Average U 0.03 0.52 U	Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	11 No. of Samples 11 11 11 11 11 11 11	505.00 High U 0.07 1.00 U 14.20 U	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 01/15/2015	81.00 Low U 0.01 0.21 U 12.70 U	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016 04/05/2016	459.92 Average U 0.03 0.52 U 13.52 U	Ft. Units mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	11 No. of Samples 11 11 11 11 11 11 11 11	505.00 High U 0.07 1.00 U 14.20	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023	81.00 Low U 0.01 0.21 U 12.70	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016	459.92 Average U 0.03 0.52 U 13.52	Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	11 No. of Samples 11 11 11 11 11 11 11 11 11 1	505.00 High U 0.07 1.00 U 14.20 U 2.84	06/11/2023 <b>Date</b> 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 01/15/2015 04/07/2022	81.00 Low U 0.01 0.21 U 12.70 U 2.84	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/07/2022	459.92 Average U 0.03 0.52 U 13.52 U 2.84	Ft. Units mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	11 No. of Samples 11 11 11 11 11 11 11 11 11 1	505.00 High U 0.07 1.00 U 14.20 U 2.84 U	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 01/15/2015 04/07/2022 01/15/2015 01/15/2015	81.00 Low U 0.01 0.21 U 12.70 U 2.84 U	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/07/2022 04/05/2016 04/05/2016	459.92 Average U 0.03 0.52 U 13.52 U 2.84 U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	11 No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	505.00 High U 0.07 1.00 U 14.20 U 2.84 U U U	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 01/15/2015 04/07/2022 01/15/2015 01/15/2015 01/15/2015	81.00 Low U 0.01 0.21 U 12.70 U 2.84 U U U	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/07/2022 04/05/2016	459.92 Average U 0.03 0.52 U 13.52 U 2.84 U U U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	11 No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	505.00 High U 0.07 1.00 U 14.20 U 2.84 U U 2.84 U U 2.70 U	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 01/15/2015 04/07/2022 01/15/2015 01/15/2015 01/15/2015 01/15/2015	81.00 Low U 0.01 0.21 U 12.70 U 2.84 U U 0.40	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 09/28/2017 04/05/2016	459.92 Average U 0.03 0.52 U 13.52 U 2.84 U U 1.44 U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	11 No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	505.00 High U 0.07 1.00 U 14.20 U 2.84 U U 2.70 U 2.70 U 5.30	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015	81.00 Low U 0.01 0.21 U 12.70 U 2.84 U U 0.40 U	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 09/28/2017 04/05/2016 01/08/2015	459.92 Average U 0.03 0.52 U 13.52 U 2.84 U U 1.44 U 4.63	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	11 No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	505.00 High U 0.07 1.00 U 14.20 U 2.84 U U 2.84 U U 2.70 U	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 06/12/2023	81.00 Low U 0.01 0.21 U 12.70 U 2.84 U 0.40 U 0.40 U 4.20 4.39	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 09/28/2017 04/05/2016 01/08/2015 06/12/2023	459.92 Average U 0.03 0.52 U 13.52 U 2.84 U U 1.44 U	Ft. mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lichium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	11 No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	505.00 High U 0.07 1.00 U 14.20 U 2.84 U U 2.70 U 2.70 U 5.30 4.39	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 06/12/2023 01/15/2015	81.00 Low U 0.01 0.21 U 12.70 U 2.84 U U 0.40 U 4.20	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 09/28/2017 04/05/2016 01/08/2015 06/12/2023 04/05/2016	459.92 Average U 0.03 0.52 U 13.52 U 2.84 U 2.84 U 1.44 U 4.63 4.39	Ft. mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved	11 No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	505.00 High U 0.07 1.00 U 14.20 U 2.84 U 2.70 U 2.70 U 5.30 4.39 U U U	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 06/12/2023 01/15/2015 01/15/2015 01/15/2015	81.00 Low U 0.01 0.21 U 12.70 U 2.84 U 0.40 U 0.40 U 4.20 4.39 U U U	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 09/28/2017 04/05/2016 01/08/2015 06/12/2023 04/05/2016 04/05/2016	459.92 Average U 0.03 0.52 U 13.52 U 2.84 U 2.84 U 1.44 U 4.63 4.39 U U U	Ft. mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved	11 No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	505.00 High U 0.07 1.00 U 14.20 U 2.84 U 2.70 U 2.70 U 5.30 4.39 U U 0.50	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 06/12/2023 06/12/2023 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015	81.00 Low U 0.01 0.21 U 12.70 U 2.84 U 0.40 U 4.20 4.39 U U 0.43	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 09/28/2017 04/05/2016 01/08/2015 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/05/2016	459.92 Average U 0.03 0.52 U 13.52 U 2.84 U 2.84 U 1.44 U 4.63 4.39 U U 0.48	Ft. mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Marcury, dissolved Molybdenum, dissolved Nickel, dissolved	11           No. of           Samples           11	505.00 High U 0.07 1.00 U 14.20 U 2.84 U 2.70 U 2.70 U 5.30 4.39 U U 0.50 0.30	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 06/12/2023 06/12/2023 06/12/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015	81.00 Low U 0.01 0.21 U 12.70 U 2.84 U 0.40 U 4.20 4.39 U U 0.43 0.30	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 09/28/2017 04/05/2016 01/08/2015 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016	459.92 Average U 0.03 0.52 U 13.52 U 2.84 U 2.84 U 1.44 U 4.63 4.39 U U 0.48 0.30	Ft. mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	11           No. of           Samples           11	505.00 High U 0.07 1.00 U 14.20 U 2.84 U 2.70 U 2.70 U 5.30 4.39 U U 0.50	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 06/12/2023 06/12/2023 06/12/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015 01/15/2015	81.00 Low U 0.01 0.21 U 12.70 U 2.84 U 0.40 U 4.20 4.39 U U 0.43	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 01/08/2015 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2015 01/08/2021 01/15/2015	459.92 Average U 0.03 0.52 U 13.52 U 2.84 U 2.84 U 1.44 U 4.63 4.39 U U 0.48	Ft. mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	11           No. of           Samples           11	505.00 High U 0.07 1.00 U 14.20 U 2.84 U 2.70 U 2.70 U 5.30 4.39 U U 0.50 0.30 68.00 U	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 01/15/2015	81.00 Low U 0.01 0.21 U 12.70 U 2.84 U 0.40 U 4.20 4.39 U U 0.43 0.30 43.00 U	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 01/08/2015 06/12/2023 04/05/2016 04/05/2016 04/05/2016 06/08/2021 01/15/2015 01/08/2015 04/05/2016	459.92 Average U 0.03 0.52 U 13.52 U 2.84 U 2.84 U 1.44 U 4.63 4.39 U U 0.48 0.30 59.22 U	Ft.           mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	11         No. of         Samples         11           11          11          11          11          11          11          11          11	505.00 High U 0.07 1.00 U 14.20 U 2.84 U 2.70 U 2.70 U 5.30 4.39 U U 0.50 0.30 68.00 U 60.00	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 01/15/2015 04/07/2022 01/15/2015	81.00 Low U 0.01 0.21 U 12.70 U 2.84 U U 0.40 U 4.20 4.39 U U 0.43 0.30 43.00 U 18.00	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 01/08/2015 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2015 01/08/2015 04/05/2016 01/08/2015	459.92 Average U 0.03 0.52 U 13.52 U 2.84 U 2.84 U 1.44 U 4.63 4.39 U U 0.48 0.30 59.22 U 39.55	Ft.           mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved Sodium, dissolved	11         No. of         Samples         11           11          11          11          11          11          11	505.00 High U 0.07 1.00 U 14.20 U 2.84 U 2.70 U 2.70 U 5.30 4.39 U U 0.50 0.30 68.00 U 60.00 12,500	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 01/15/2015 04/07/2022 01/15/2015	81.00 Low U 0.01 0.21 U 12.70 U 2.84 U 0.40 U 0.40 U 4.20 4.39 U U 0.43 0.30 43.00 U 18.00 10,800	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015	459.92 Average U 0.03 0.52 U 13.52 U 2.84 U 2.84 U 1.44 U 4.63 4.39 U U 0.48 0.30 59.22 U 39.55 11,709	Ft.           mg/l           mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Magnesium, dissolved Selenium, dissolved Silica, dissolved Sodium, dissolved Strontium, dissolved	11         No. of         Samples         11	505.00 High U 0.07 1.00 U 14.20 U 2.84 U 2.70 U 2.70 U 5.30 4.39 U U 0.50 0.30 68.00 U 60.00 12,500 0.10	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 01/15/2015 04/07/2022 01/15/2015	81.00 Low U 0.01 0.21 U 12.70 U 2.84 U U 0.40 U 4.20 4.39 U U 0.43 0.30 43.00 U 18.00 10,800 0.00	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015	459.92 Average U 0.03 0.52 U 13.52 U 2.84 U 2.84 U 1.44 U 4.63 4.39 U U 0.48 0.30 59.22 U 39.55 11,709 0.07	Ft.           Units           mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Sodium, dissolved	11           No. of           Samples           11	505.00 High U 0.07 1.00 U 14.20 U 2.84 U 2.70 U 2.70 U 5.30 4.39 U U 0.50 0.30 68.00 U 60.00 12,500	06/11/2023 Date 01/15/2015 01/15/2015 01/15/2015 01/15/2015 06/12/2023 01/15/2015 04/07/2022 01/15/2015	81.00 Low U 0.01 0.21 U 12.70 U 2.84 U 0.40 U 0.40 U 4.20 4.39 U U 0.43 0.30 43.00 U 18.00 10,800	01/08/2015 Date 04/05/2016 04/05/2016 06/12/2023 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015	459.92 Average U 0.03 0.52 U 13.52 U 2.84 U 2.84 U 1.44 U 4.63 4.39 U U 0.48 0.30 59.22 U 39.55 11,709	Ft.           mg/l           mg/l

Appx. Table A-25: DS-8 Annual	Dissolution	Surface Aquifer
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Devementeve	No. of						
Parameters Wet Chemistry	No. of Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3		20,200	06/02/2020	11,900	06/20/2018	14,742	mg/l
Carbonate as CaCO3		4,570	04/22/2019	1,880	09/28/2017	2,706	mg/l
Total Alkalinity as CaCO3		22,200	06/02/2020	14,300	09/28/2017	17,442	mg/l
Bromide		<u> </u>	09/28/2017	<u> </u>	06/02/2020		mg/l
Cation-Anion Balance		-1.90	09/28/2017	-83.70	06/02/2020	-10.88	%
Sum of Anions		474.00	06/02/2020	341.00	06/20/2018	408.00	meq/l
Sum of Cations		429.00	06/03/2022	42.00	06/02/2020	341.83	meq/l
Chemical Oxygen Demand		132.00	09/28/2017	90.00	06/02/2020	112.00	mg/l
Chloride		2,470	02/04/2015	830	06/08/2021	1,723	mg/l
Conductivity, Lab		29.900	06/03/2022	24,300	12/15/2015	26,800	umhos
Fluoride		62.50	04/22/2019	40.60	06/12/2023	48.27	mg/l
Hardness as CaCO3		36.00	01/28/2015	<u> </u>	12/15/2015	20.00	mg/l
Nitrate as N, dissolved		0.03	01/28/2015	0.03	01/28/2015	0.03	mg/l
Nitrate/Nitrite as N,		0.04	01/28/2015	0.04	01/28/2015	0.04	mg/l
Nitrite as N, dissolved		0.01	01/28/2015	0.01	01/28/2015	0.01	mg/l
Nitrogen, Ammonia		8.55	06/12/2023	3.43	06/20/2018	5.43	mg/l
Nitrogen, Organic		6.00	06/08/2021	1.80	01/28/2015	3.99	mg/l
Nitrogen, Total Kjeldahl		10.50	06/08/2021	2.30	06/02/2020	7.97	mg/l
pH, lab		9.00	04/22/2019	6.70	06/12/2023	8.63	units
Phosphate, total		12.00	06/02/2020	3.70	02/04/2015	8.16	mg/l
Phosphorus, total		3.89	06/08/2021	1.20	02/04/2015	2.60	mg/l
SAR in Water		1,700	06/08/2021	83.00	06/02/2020	772	none
Sulfate		2,870	02/04/2015	10.80	04/22/2019	588	mg/l
Sulfide		0.47	06/03/2022	0.42	06/12/2023	0.44	mg/l
Total Dissolved Solids		24,100	06/03/2022	15,500	06/02/2020	20,575	mg/l
Conductivity, Field		29,450	04/22/2019	23,740	04/05/2016	26,946	μmhos
pH, Field		8.93	06/20/2018	7.20	01/29/2015	8.38	units
		0.00					
Temperature (°C) Field	11	14 35					
Temperature (°C), Field Water Level Field		14.35 470 10	06/20/2018	11.90	04/22/2019	13.17	(°C)
Temperature (°C), Field Water Level, Field		14.35 470.10					
Water Level, Field	12	470.10	06/20/2018 10/29/2014	11.90 448.30	04/22/2019 06/12/2023	13.17 455.80	(°C) Ft.
Water Level, Field Parameters	12 <b>No. of</b>		06/20/2018	11.90	04/22/2019	13.17	(°C)
Water Level, Field Parameters Metals	12 No. of Samples	470.10 High	06/20/2018 10/29/2014 Date	11.90 448.30 <b>Low</b>	04/22/2019 06/12/2023 Date	13.17 455.80 Average	(°C) Ft. Units
Water Level, Field Parameters Metals Aluminum, dissolved	12 No. of Samples 12	470.10 <b>High</b> U	06/20/2018 10/29/2014 <b>Date</b> 02/04/2015	11.90 448.30 Low	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021	13.17 455.80 Average	(°C) Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	12 <b>No. of</b> Samples 12 12	470.10 <b>High</b> U 0.011	06/20/2018 10/29/2014 <b>Date</b> 02/04/2015 11/04/2014	11.90 448.30 Low U 0.003	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015	13.17 455.80 Average U 0.006	(°C) Ft. Units mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	12 No. of Samples 12 12 12 12	470.10 <b>High</b> U	06/20/2018 10/29/2014 <b>Date</b> 02/04/2015 11/04/2014 11/04/2014	11.90 448.30 Low	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 02/04/2015	13.17 455.80 Average	(°C) Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	12 No. of Samples 12 12 12 12 12	470.10 High U 0.011 1.87 U	06/20/2018 10/29/2014 <b>Date</b> 02/04/2015 11/04/2014 11/04/2014 02/04/2015	11.90 448.30 Low U 0.003 0.12	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 02/04/2015 06/08/2021	13.17 455.80 Average U 0.006 0.84 U	(°C) Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	12 No. of Samples 12 12 12 12 12 12 12	470.10 High U 0.011 1.87	06/20/2018 10/29/2014 <b>Date</b> 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021	11.90 448.30 Low U 0.003 0.12 U	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020	13.17 455.80 Average U 0.006	(°C) Ft. Units mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	12 No. of Samples 12 12 12 12 12 12 12 12 12	470.10 High U 0.011 1.87 U 13.90 U	06/20/2018 10/29/2014 <b>Date</b> 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021 02/04/2015	11.90 448.30 Low U 0.003 0.12 U 1.20 U	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021	13.17 455.80 <b>Average</b> U 0.006 0.84 U 9.78 U	(°C) Ft. Units mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	12 No. of Samples 12 12 12 12 12 12 12 12 12 12 12	470.10 High U 0.011 1.87 U 13.90	06/20/2018 10/29/2014 <b>Date</b> 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021	11.90 448.30 Low U 0.003 0.12 U 1.20	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020	13.17 455.80 <b>Average</b> U 0.006 0.84 U 9.78	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	12 <b>No. of</b> <b>Samples</b> 12 12 12 12 12 12 12 12 12 12	470.10 High U 0.011 1.87 U 13.90 U 6.00	06/20/2018 10/29/2014 <b>Date</b> 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021 02/04/2015 11/04/2014 02/04/2015	11.90 448.30 Low U 0.003 0.12 U 1.20 U 2.00	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021	13.17 455.80 <b>Average</b> U 0.006 0.84 U 9.78 U 3.25	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	12 <b>No. of</b> <b>Samples</b> 12 12 12 12 12 12 12 12 12 12	470.10 High U 0.011 1.87 U 13.90 U 6.00 U	06/20/2018 10/29/2014 <b>Date</b> 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021 02/04/2015 11/04/2014	11.90 448.30 Low U 0.003 0.12 U 1.20 U 1.20 U 2.00 U	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015	13.17 455.80 <b>Average</b> U 0.006 0.84 U 9.78 U 3.25 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	12 No. of Samples 12 12 12 12 12 12 12 12 12 12 12 12 12	470.10 High U 0.011 1.87 U 13.90 U 6.00 U U U U	06/20/2018 10/29/2014 <b>Date</b> 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021 02/04/2015 11/04/2014 02/04/2015 02/04/2015	11.90 448.30 U U 0.003 0.12 U 1.20 U 1.20 U 2.00 U U U	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021	13.17 455.80 <b>Average</b> U 0.006 0.84 U 9.78 U 3.25 U U U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	12 No. of Samples 12 12 12 12 12 12 12 12 12 12 12 12 12	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 0 U 1.20	06/20/2018 10/29/2014 <b>Date</b> 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021 02/04/2015 11/04/2014 02/04/2015 02/04/2015 11/04/2014	11.90 448.30 U U 0.003 0.12 U 1.20 U 1.20 U 2.00 U U U 0.20	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 06/08/2021 12/15/2015	13.17 455.80 U 0.006 0.84 U 9.78 U 9.78 U 3.25 U U U 0.58	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	12 No. of Samples 12 12 12 12 12 12 12 12 12 12 12 12 12	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 0 U 1.20 U	06/20/2018 10/29/2014 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021 02/04/2015 11/04/2014 02/04/2015 02/04/2015 11/04/2014 02/04/2015	11.90 448.30 U U 0.003 0.12 U 1.20 U 1.20 U 2.00 U U U 0.20 U	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 12/15/2015 06/08/2021	13.17 455.80 <b>Average</b> U 0.006 0.84 U 9.78 U 9.78 U 3.25 U U 0.58 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	12 No. of Samples 12 12 12 12 12 12 12 12 12 12 12 12 12	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 0 U 1.20 U 4.11	06/20/2018 10/29/2014 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021 02/04/2015 11/04/2014 02/04/2015 02/04/2015 11/04/2014 02/04/2015 06/12/2023 01/28/2015	11.90 448.30 U 0.003 0.12 U 1.20 U 1.20 U 2.00 U U 0.20 U 0.20	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 12/15/2015 06/08/2021 06/08/2021 06/08/2021 06/02/2020 06/12/2023	13.17 455.80 U 0.006 0.84 U 9.78 U 9.78 U 3.25 U U 0.58 U U 3.03	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Magnesium, dissolved	12 No. of Samples 12 12 12 12 12 12 12 12 12 12 12 12 12	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 0 U 1.20 U 4.11 7.00	06/20/2018 10/29/2014 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021 02/04/2015 11/04/2014 02/04/2015 02/04/2015 11/04/2014 02/04/2015 06/12/2023	11.90 448.30 U 0.003 0.12 U 1.20 U 1.20 U 2.00 U U 0.20 U 0.20 2.03	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 12/15/2015 06/08/2021 06/02/2020 06/12/2023 06/08/2021	13.17 455.80 U 0.006 0.84 U 9.78 U 9.78 U 3.25 U U 0.58 U 0.58 U 3.03 4.81	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved	12 No. of Samples 12 12 12 12 12 12 12 12 12 12 12 12 12	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 0 U 1.20 U 4.11 7.00 U	06/20/2018 10/29/2014 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021 02/04/2015 11/04/2014 02/04/2015 11/04/2014 02/04/2015 11/04/2014 02/04/2015 06/12/2023 01/28/2015 02/04/2015	11.90 448.30 U 0.003 0.12 U 1.20 U 1.20 U 2.00 U U 0.20 U 0.20 U 0.20 2.03 U	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 12/15/2015 06/08/2021 06/08/2021 06/08/2021 06/02/2020 06/12/2023	13.17 455.80 U 0.006 0.84 U 9.78 U 9.78 U 3.25 U U 0.58 U 0.58 U 3.03 4.81 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved	12 No. of Samples 12 12 12 12 12 12 12 12 12 12 12 12 12	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 0 U 1.20 U 4.11 7.00 U U U U	06/20/2018 10/29/2014 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021 02/04/2015 02/04/2015 11/04/2014 02/04/2015 02/04/2015 06/12/2023 01/28/2015 02/04/2015 02/04/2015 02/04/2015	11.90 448.30 U 0.003 0.12 U 1.20 U 1.20 U 2.00 U U 0.20 U 0.20 2.03 U U U U 0.20 2.03 U	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 12/15/2015 06/08/2021 06/08/2021 06/08/2021 12/15/2015	13.17 455.80 U 0.006 0.84 U 9.78 U 9.78 U 3.25 U 0 0.58 U 0 0.58 U 3.03 4.81 U U U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved	12 No. of Samples 12 12 12 12 12 12 12 12 12 12 12 12 12	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 1.20 U 1.20 U 4.11 7.00 U U 0.30	06/20/2018 10/29/2014 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021 02/04/2015 11/04/2014 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015	11.90 448.30 U 0.003 0.12 U 1.20 U 1.20 U 2.00 U U 0.20 U 0.20 2.03 U U 0.20 U 0.20 U 0.20 U U 0.20 U U 0.20 U U U 0.20 U U 0.20 U U 0.20 U U 0.20 U U 0.20 U U 0.20 U U 0.20 U U 0.20 U U 0.20 U U 0.20 U U 0.20 U U 0.00 U 0.12 U U 0.00 U 0.12 U U 0.12 U U 0.00 U 0.12 U U 0.12 U 0.00 U 0.12 U U 0.00 U 0.12 U U 0.00 U 0.12 U U 0.20 U 0.12 U U 0.20 U 0.20 U 0.20 U 0.20 U 0.20 U 0.20 U 0.20 U 0.20 U 0.20 U 0.20 U 0.20 U 0.20 U 0.20 U 0.20 U U 0.20 U U 0.20 U 0 U 0 0 0 0 0 0 0 U U 0 0 0 0 0 0 0	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 12/15/2015 06/08/2021 06/08/2021 12/15/2015 06/08/2021	13.17 455.80 U 0.006 0.84 U 9.78 U 3.25 U 0.58 U 0.58 U 3.03 4.81 U U 0.25 U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	12 No. of Samples 12 12 12 12 12 12 12 12 12 12	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 1.20 U 1.20 U 4.11 7.00 U U 0.30 U	06/20/2018 10/29/2014 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015	11.90 448.30 U 0.003 0.12 U 1.20 U 1.20 U 2.00 U U 0.20 U 0.20 2.03 U U U 0.20 2.03 U	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 12/15/2015 06/08/2021 06/08/2021 12/15/2015 06/08/2021 12/15/2015 06/08/2021 06/08/2021	13.17 455.80 U 0.006 0.84 U 9.78 U 9.78 U 3.25 U 0 0.58 U 0 0.58 U 3.03 4.81 U U U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	12 No. of Samples 12 12 12 12 12 12 12 12 12 12	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 0.00 U 1.20 U 4.11 7.00 U 4.11 7.00 U 0.30 U 30.00 U	06/20/2018 10/29/2014 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015	11.90 448.30 U 0.003 0.12 U 1.20 U 1.20 U 2.00 U U 0.20 U 0.20 2.03 U U 0.20 U 0.20 U 0.20 U 0.20 U 0.20 U 18.10 U	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 06/08/2021 06/08/2021 06/08/2021 12/15/2015 06/08/2021 06/08/2021 06/08/2021 06/08/2021	13.17 455.80 U 0.006 0.84 U 9.78 U 3.25 U U 3.25 U U 0.58 U 3.03 4.81 U U 0.25 U U 23.08 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	12 No. of Samples 12 12 12 12 12 12 12 12 12 12	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 1.20 U 1.20 U 4.11 7.00 U U 0.30 U 30.00 U 29.00	06/20/2018 10/29/2014 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 04/22/2019 02/04/2015	11.90 448.30 U 0.003 0.12 U 1.20 U 1.20 U 2.00 U U 0.20 2.03 U U 0.20 2.03 U U 0.20 2.03 U U 0.20 2.03 U U 18.10 U 12.00	04/22/2019 06/12/2023 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 02/04/2015 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021	13.17 455.80 U 0.006 0.84 U 9.78 U 3.25 U U 3.25 U U 0.58 U 3.03 4.81 U U 0.25 U U 23.08 U 23.08 U 21.33	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved Sodium, dissolved	12 No. of Samples 12 12 12 12 12 12 12 12 12 12	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 1.20 U 1.20 U 4.11 7.00 U U 0.30 U 0.30 U 29.00 9,730	06/20/2018 10/29/2014 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 04/22/2019 02/04/2015	11.90 448.30 U 0.003 0.12 U 1.20 U 1.20 U U 0.20 U 0.20 2.03 U U 0.20 2.03 U U 0.20 2.03 U U 0.20 2.03 U U 18.10 U 12.00 940	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021	13.17 455.80 U 0.006 0.84 U 9.78 U 3.25 U U 3.25 U U 0.58 U 3.03 4.81 U U 0.25 U U 23.08 U 23.08 U 21.33 7,742	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Selenium, dissolved Sodium, dissolved Strontium, dissolved	12 No. of Samples 12 12 12 12 12 12 12 12 12 12	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 1.20 U 1.20 U 4.11 7.00 U 4.11 7.00 U 0.30 U 29.00 9,730 1.10	06/20/2018 10/29/2014 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 04/22/2019 06/03/2022 06/02/2020	11.90 448.30 U 0.003 0.12 U 1.20 U 1.20 U 2.00 U U 0.20 2.03 U U 0.20 2.03 U U 0.20 2.03 U U 0.20 2.03 U U 18.10 U 12.00	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/02/2020 06/02/2020 06/02/2020 06/02/2020	13.17 455.80 U 0.006 0.84 U 9.78 U 3.25 U U 3.25 U U 0.58 U 3.03 4.81 U U 0.25 U U 23.08 U 23.08 U 21.33	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field         Parameters         Metals         Aluminum, dissolved         Arsenic, dissolved         Barium, dissolved         Beryllium, dissolved         Boron, dissolved         Cadmium, dissolved         Cadmium, dissolved         Cadmium, dissolved         Calcium, dissolved         Chromium, dissolved         Lead, dissolved         Lead, dissolved         Magnesium, dissolved         Manganese, dissolved         Molybdenum, dissolved         Nickel, dissolved         Potassium, dissolved         Selenium, dissolved         Silica, dissolved	12 No. of Samples 12 12 12 12 12 12 12 12 12 12	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 1.20 U 1.20 U 4.11 7.00 U U 0.30 U 0.30 U 29.00 9,730	06/20/2018 10/29/2014 02/04/2015 11/04/2014 11/04/2014 02/04/2015 06/08/2021 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 02/04/2015 04/22/2019 02/04/2015	11.90 448.30 U 0.003 0.12 U 1.20 U 2.00 U U 0.20 U 0.20 2.03 U U 0.20 U 0.20 U 0.20 U 0.20 U 18.10 U 12.00 940 0.06	04/22/2019 06/12/2023 <b>Date</b> 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021	13.17 455.80 U 0.006 0.84 U 9.78 U 9.78 U 3.25 U U 0.58 U 0.58 U 3.03 4.81 U 0.25 U U 0.25 U 23.08 U 21.33 7,742 0.29	(°C) Ft. mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Appx. Table A-26: DS-9 Annual Dissolution Surface Aquifer

DAUB & ASSOCIATES, INC. The second s



Laramatora	No. of						
Parameters Wet Chemistry	Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3		41,100	07/08/2021	17,200	12/01/2020	23,519	mg/l
Carbonate as CaCO3		13,800	09/07/2021	566	09/03/2020	4,072	mg/l
Total Alkalinity as CaCO3		50,300	07/08/2021	19,400	11/02/2020	27,588	mg/l
Bromide	6	Ü	05/03/2021	U	05/13/2020	Ŭ	mg/l
Cation-Anion Balance		13.50	05/13/2020	-33.30	04/07/2020	-4.42	%
Sum of Anions		1,230.00	07/08/2021	447.00	11/02/2020	784.90	meq/l
Sum of Cations	31	1,280.00	09/07/2021	353.00	12/01/2020	725.94	meq/l
Chemical Oxygen	6	400.00	08/14/2019	177.00	06/20/2023	325.67	mg/l
Chloride	31	19,800	09/10/2019	2,040	11/02/2020	8,035	mg/l
Conductivity, Lab		74,500	09/10/2019	25,000	12/01/2020	49,988	μmhos
Fluoride		109.00	09/07/2021	29.00	09/10/2019	64.75	mg/l
Hardness as CaCO3		18.00	10/07/2019	7.00	04/05/2021	11.50	mg/l
Nitrate as N, dissolved	6	UH	05/03/2021	UH	05/13/2020	UH	mg/l
Nitrate/Nitrite as N,	6	ÜH	05/03/2021	UH	05/13/2020	ÜH	mg/l
Nitrite as N, dissolved		UH	05/03/2021	UH	05/13/2020	ÜH	mg/l
Nitrogen, Ammonia		19.80	03/14/2022	8.55	05/03/2021	12.83	mg/l
Nitrogen, Organic		9.00	05/03/2021	5.00	08/14/2019	6.75	mg/l
Nitrogen, Total Kjeldahl	6	22.50	06/20/2023	2.10	05/13/2020	15.18	mg/l
pH, lab	32	9.00	06/20/2023	8.50	06/02/2020	8.70	units
Phosphate, total	6	69.00	06/20/2023	22.00	08/14/2019	32.33	mg/l
Phosphorus, total		22.40	06/20/2023	7.10	08/14/2019	10.41	mg/l
SAR in Water	9	4,200	08/02/2021	1,200.00	11/02/2020	2,450	none
Sulfate		UH	05/03/2021	U	05/13/2020	<u> </u>	mg/l
Sulfide		10.00	05/13/2020	0.29	06/20/2023	4.08	mg/l
Total Dissolved Solids		67,700	09/07/2021	22,700	12/01/2020	41,671	mg/l
Conductivity, Field		70,540	08/20/2019	28,730	12/01/2020	48,345	μmhos
pH, Field		8.90	01/11/2021	8.20	12/01/2020	8.55	units
Temperature (°C), Field		22.00	06/20/2023	9.32	02/10/2020	12.46	(°C)
Water Level, Field	38	627.80	04/07/2020	565.60	01/11/2021	591.36	Ft.
		02.100	0 ./ 0 ./ 2020	000.00	0.7.17202	0000	
Parameters	No. of	High	Date	Low	Date	Average	Units
Metals	Samples	riigii	Dale		Date	-	Units
	Gumpica						
Aluminum, dissolved	6	U	05/03/2021	U	5/13/20	U	mg/l
	6	U 0.01		U 0.01	5/13/20 03/14/2022	U 0.01	
Aluminum, dissolved		-	05/03/2021 08/14/2019 08/20/2019	-		-	mg/l
Aluminum, dissolved Arsenic, dissolved	6	0.01	08/14/2019	0.01	03/14/2022	0.01	
Aluminum, dissolved Arsenic, dissolved Barium, dissolved	6 6 6	0.01 1.90	08/14/2019 08/20/2019 05/03/2021	0.01 1.02	03/14/2022 06/20/2023	0.01 1.59	mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	6 6 6	0.01 1.90 U	08/14/2019 08/20/2019	0.01 1.02 U	03/14/2022 06/20/2023 05/13/2020	0.01 1.59 U	mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	6 6 6 31	0.01 1.90 U 61.00	08/14/2019 08/20/2019 05/03/2021 09/07/2021 05/03/2021	0.01 1.02 U 11.50	03/14/2022 06/20/2023 05/13/2020 12/01/2020 05/13/2020	0.01 1.59 U 23.12	mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	6 6 6 31 6	0.01 1.90 U 61.00 U	08/14/2019 08/20/2019 05/03/2021 09/07/2021	0.01 1.02 U 11.50 U	03/14/2022 06/20/2023 05/13/2020 12/01/2020	0.01 1.59 U 23.12 U	mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	6 6 6 31 6 31	0.01 1.90 U 61.00 U 7.00	08/14/2019 08/20/2019 05/03/2021 09/07/2021 05/03/2021 10/07/2019	0.01 1.02 U 11.50 U 2.63	03/14/2022 06/20/2023 05/13/2020 12/01/2020 05/13/2020 08/02/2021	0.01 1.59 U 23.12 U 4.61	mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	6 6 6 31 6 31 6 31 6 6	0.01 1.90 U 61.00 U 7.00 U	08/14/2019 08/20/2019 05/03/2021 09/07/2021 05/03/2021 10/07/2019 05/03/2021 05/03/2021	0.01 1.02 U 11.50 U 2.63 U	03/14/2022 06/20/2023 05/13/2020 12/01/2020 05/13/2020 08/02/2021 05/13/2020 05/13/2020	0.01 1.59 U 23.12 U 4.61 U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	6 6 6 31 6 31 6 31	0.01 1.90 U 61.00 U 7.00 U U U	08/14/2019 08/20/2019 05/03/2021 09/07/2021 05/03/2021 10/07/2019 05/03/2021	0.01 1.02 U 11.50 U 2.63 U U	03/14/2022 06/20/2023 05/13/2020 12/01/2020 05/13/2020 08/02/2021 05/13/2020	0.01 1.59 U 23.12 U 4.61 U U U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	6 6 6 31 6 31 6 6 6 6 6	0.01 1.90 U 61.00 U 7.00 U U U U U U U	08/14/2019 08/20/2019 05/03/2021 09/07/2021 05/03/2021 10/07/2019 05/03/2021 05/03/2021 05/03/2021	0.01 1.02 U 11.50 U 2.63 U U U U U U U	03/14/2022 06/20/2023 05/13/2020 12/01/2020 05/13/2020 08/02/2021 05/13/2020 05/13/2020 05/13/2020	0.01 1.59 U 23.12 U 4.61 U U U U U U U U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	6 6 6 31 6 31 6 6 6 6	0.01 1.90 U 61.00 U 7.00 U U U U U	08/14/2019 08/20/2019 05/03/2021 09/07/2021 05/03/2021 10/07/2019 05/03/2021 05/03/2021	0.01 1.02 U 11.50 U 2.63 U U U U	03/14/2022 06/20/2023 05/13/2020 12/01/2020 05/13/2020 08/02/2021 05/13/2020 05/13/2020 05/13/2020	0.01 1.59 U 23.12 U 4.61 U U U U U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	6 6 6 31 6 31 6 6 6 6 6 6	0.01 1.90 U 61.00 U 7.00 U U U U U 3.70	08/14/2019 08/20/2019 05/03/2021 05/03/2021 10/07/2019 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021	0.01 1.02 U 11.50 U 2.63 U U U U U 3.32	03/14/2022 06/20/2023 05/13/2020 12/01/2020 05/13/2020 08/02/2021 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020	0.01 1.59 U 23.12 U 4.61 U U U U U 3.55	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	6 6 6 31 6 31 6 6 6 6 6 31 6 31 6 6	0.01 1.90 U 61.00 U 7.00 U U U U 3.70 U	08/14/2019 08/20/2019 05/03/2021 09/07/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021	0.01 1.02 U 11.50 U 2.63 U U U U U 3.32 U	03/14/2022 06/20/2023 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020	0.01 1.59 U 23.12 U 4.61 U U U U U 3.55 U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved	6 6 31 6 31 6 6 6 6 6 31 6 6 6 6 6 6 6 6	0.01 1.90 U 61.00 U 7.00 U U U U 3.70 U U U U	08/14/2019 08/20/2019 05/03/2021 05/03/2021 10/07/2019 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021	0.01 1.02 U 11.50 U 2.63 U U U U U 3.32 U U U U	03/14/2022 06/20/2023 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 06/20/2023 05/13/2020 05/13/2020 05/13/2020	0.01 1.59 U 23.12 U 4.61 U U U U U 3.55 U U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	6 6 6 31 6 31 6 6 6 6 6 31 6 31 6 6	0.01 1.90 U 61.00 U 7.00 U U U U 3.70 U U U U U U U U U U U U U	08/14/2019 08/20/2019 05/03/2021 05/03/2021 10/07/2019 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021	0.01 1.02 U 11.50 U 2.63 U U U U U 3.32 U U U U U U U U U U U U U	03/14/2022 06/20/2023 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020	0.01 1.59 U 23.12 U 4.61 U U U U U 3.55 U U U U U U U U U U U U U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved	6 6 31 6 31 6 6 6 6 31 6 6 6 6 6 6 6 6 6	0.01 1.90 U 61.00 U 7.00 U U U U U U U U U U U U U	08/14/2019 08/20/2019 05/03/2021 05/03/2021 10/07/2019 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021	0.01 1.02 U 11.50 U 2.63 U U U U U U U U U U U U U	03/14/2022 06/20/2023 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020	0.01 1.59 U 23.12 U 4.61 U U U U 3.55 U U U U U U U U U U U U U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved	6 6 31 6 31 6 6 6 6 31 6 6 6 6 6 6 31 6 6 31 31 31	0.01 1.90 U 61.00 U 7.00 U U U U U U U U U U U U U	08/14/2019 08/20/2019 05/03/2021 05/03/2021 10/07/2019 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021	0.01 1.02 U 11.50 U 2.63 U U U U U U U U U U U U U	03/14/2022 06/20/2023 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020	0.01 1.59 U 23.12 U 4.61 U U U U 3.55 U U U U U U U U U U U U U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	$ \begin{array}{c} 6 \\ 6 \\ 31 \\ 6 \\ 31 \\ 6 \\ 6 \\ 6 \\ 6 \\ 31 \\ 6 \\ 6 \\ 31 \\ 6 \\ 6 \\ 6 \\ 31 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6$	0.01 1.90 U 61.00 U 7.00 U U U U U U U U U U U U U	08/14/2019 08/20/2019 05/03/2021 05/03/2021 10/07/2019 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021	0.01 1.02 U 11.50 U 2.63 U U U U U U U U U U U U U	03/14/2022 06/20/2023 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 12/01/2020	0.01 1.59 U 23.12 U 4.61 U U U U U U U U U U U U U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	$ \begin{array}{c} 6 \\ 6 \\ 31 \\ 6 \\ 31 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 31 \\ 6 \\ 6 \\ 31 \\ 6 \\ 6 \\ 31 \\ 6 \\ 31 \\ 6 \\ 6 \\ 31 \\ 6 \\ 6 \\ 31 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6$	0.01 1.90 U 61.00 U 7.00 U U U U U U U U U U U U U	08/14/2019 08/20/2019 05/03/2021 09/07/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021	0.01 1.02 U 11.50 U 2.63 U U U U U U U U U U U U U	03/14/2022 06/20/2023 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 12/01/2020 05/03/2021 12/01/2020	0.01 1.59 U 23.12 U 4.61 U U U U U U U U U U U U U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Selenium, dissolved Solica, dissolved	$ \begin{array}{c} 6 \\ 6 \\ 31 \\ 6 \\ 31 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 31 \\ 6 \\ 6 \\ 31 \\ 6 \\ 31 \\ 6 \\ 31 \\ 6 \\ 31 \\ 31 \\ 31 \\ \end{array} $	0.01 1.90 U 61.00 U 7.00 U U U U U U U U U U U 0 0.0021 31.00 29,100	08/14/2019 08/20/2019 05/03/2021 09/07/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021	0.01 1.02 U 11.50 U 2.63 U U U U U U U U U U U U U	03/14/2022 06/20/2023 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 12/01/2020 12/01/2020	0.01 1.59 U 23.12 U 4.61 U U U U U U U U U U U U U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	$ \begin{array}{c} 6 \\ 6 \\ 31 \\ 6 \\ 31 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 31 \\ 6 \\ 6 \\ 31 \\ 6 \\ 6 \\ 31 \\ 6 \\ 31 \\ 6 \\ 6 \\ 31 \\ 6 \\ 6 \\ 31 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6$	0.01 1.90 U 61.00 U 7.00 U U U U U U U U U U U U U	08/14/2019 08/20/2019 05/03/2021 09/07/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021	0.01 1.02 U 11.50 U 2.63 U U U U U U U U U U U U U	03/14/2022 06/20/2023 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 05/13/2020 12/01/2020 05/03/2021 12/01/2020	0.01 1.59 U 23.12 U 4.61 U U U U U U U U U U U U U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Appx. Table A-27: DS-10 Annual Dissolution Surface Aquifer

DAUB & ASSOCIATES, INC. 20 AND A THE A



Devemetere	No. of						
Parameters Wet Chemistry	No. of	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	Samples 65	31,900	03/15/2022	294	09/16/1991	9,030	mg/l
Carbonate as CaCO3	65	4,730	11/02/2015	10.00	06/30/1995	1,094	mg/l
Total Alkalinity as CaCO3	65	33,900	03/15/2022	294	09/16/1991	10,023	mg/l
Bromide	34	33.00	08/30/1990	0.10	05/21/2007	7.54	mg/l
Cation-Anion Balance	65	6.10	03/28/2018	-27.90	03/15/2022	-2.56	%
Sum of Anions	62	700.00	03/15/2022	30.69	03/25/1992	236.38	meq/l
Sum of Cations	62	409.00	03/09/2020	31.56	05/28/1991	212.30	meg/l
Chemical Oxygen	31	960.00	06/14/2008	37.00	09/27/2017	154.79	mg/l
Chloride	64	774.00	02/12/2023	21.00	08/30/1990	361.81	mg/l
Conductivity, Lab	63	39,600	03/15/2022	2,500	06/16/1992	14,188	μmhos
Fluoride	65	48.30	03/09/2021	1.30	05/28/1991	27.84	mg/l
Hardness as CaCO3	65	135.00	06/14/2008	6.00	08/30/1990	25.27	mg/l
Nitrate as N, dissolved	34	3.22	10/22/2013	0.02	05/24/2005	0.51	mg/l
Nitrate/Nitrite as N.	34	4.14	10/22/2013	0.02	09/27/2017	0.61	mg/l
Nitrite as N, dissolved	34	0.92	10/22/2013	0.00	05/21/2007	0.15	mg/l
Nitrogen, Ammonia	34	10.20	02/12/2023	1.17	09/15/1992	4.29	mg/l
Nitrogen, Organio	34	46.00	06/14/2008	0.50	08/22/1990	7.34	mg/l
Nitrogen, Total Kjeldah	34	51.00	06/14/2008	1.90	08/22/1990	11.01	mg/l
pH, lab	65	9.20	06/16/1992	8.30	06/30/1995	8.64	units
Phosphate, tota	32	155.00	05/21/2007	0.17	09/15/1992	16.37	mg/l
Phosphorus, tota	35	9.63	03/15/2022	0.05	09/15/1992	2.20	mg/l
SAR in Water	55	1,600.00	03/15/2022	88.89	03/25/1992	425.26	none
Sulfate		2,031.00	09/16/1991	2.50	06/18/1996	169.18	mg/l
Sulfide	34	3.31	08/30/1990	0.00	07/31/1991	0.57	mg/l
Total Dissolved Solids	64	30,400	03/15/2022	1,708	09/15/1992	11,224	mg/l
Conductivity, Field	82	36,320	03/09/2020	1,800	06/01/1991	13,627	μmhos
pH, Field	81	12.20	09/01/1990		11/07/2015	8.88	units
				7.86			
Temperature (°C), Field	46	19.40	08/01/1990	7.50	12/01/1990	12.33	(°C)
	46						
Temperature (°C), Field Water Level, Field	46 59	19.40 424.20	08/01/1990 02/12/2023	7.50 405.03	12/01/1990 04/01/2001	12.33 411.10	(°C) Ft.
Temperature (°C), Field Water Level, Field Parameters	46 59 <b>No. of</b>	19.40	08/01/1990	7.50	12/01/1990	12.33	(°C)
Temperature (°C), Field Water Level, Field Parameters Metals	46 59 <b>No. of</b> Samples	19.40 424.20 <b>High</b>	08/01/1990 02/12/2023 Date	7.50 405.03 <b>Low</b>	12/01/1990 04/01/2001 Date	12.33 411.10 Average	(°C) Ft. Units
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved	46 59 <b>No. of</b> Samples 34	19.40 424.20 High 1.40	08/01/1990 02/12/2023 <b>Date</b> 09/15/2010	7.50 405.03 Low 0.05	12/01/1990 04/01/2001 <b>Date</b> 06/23/1994	12.33 411.10 Average 0.61	(°C) Ft. Units mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	46 59 <b>No. of</b> <b>Samples</b> 34 34	19.40 424.20 High 1.40 0.0050	08/01/1990 02/12/2023 <b>Date</b> 09/15/2010 08/22/1990	7.50 405.03 Low 0.05 0.0010	12/01/1990 04/01/2001 <b>Date</b> 06/23/1994 09/15/1992	12.33 411.10 <b>Average</b> 0.61 0.0027	(°C) Ft. <b>Units</b> mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	46 59 <b>No. of</b> <b>Samples</b> 34 34 34 34	19.40 424.20 High 1.40	08/01/1990 02/12/2023 <b>Date</b> 09/15/2010 08/22/1990 09/15/2010	7.50 405.03 Low 0.05 0.0010 0.08	12/01/1990 04/01/2001 <b>Date</b> 06/23/1994 09/15/1992 09/15/1992	12.33 411.10 Average 0.61	(°C) Ft. Units mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	46 59 <b>No. of</b> <b>Samples</b> 34 34 34 34 34	19.40 424.20 High 1.40 0.0050 6.65 U	08/01/1990 02/12/2023 <b>Date</b> 09/15/2010 08/22/1990 09/15/2010 06/16/1997	7.50 405.03 Low 0.05 0.0010 0.08 U	12/01/1990 04/01/2001 <b>Date</b> 06/23/1994 09/15/1992 09/15/1992 08/08/1990	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U	(°C) Ft. Units mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	46 59 <b>No. of</b> <b>Samples</b> 34 34 34 34 34 55	19.40 424.20 High 1.40 0.0050 6.65	08/01/1990 02/12/2023 <b>Date</b> 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022	7.50 405.03 Low 0.05 0.0010 0.08	12/01/1990 04/01/2001 <b>Date</b> 06/23/1994 09/15/1992 09/15/1992 08/08/1990 02/26/1991	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17	(°C) Ft. Units mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	46 59 <b>No. of</b> <b>Samples</b> 34 34 34 34 34 65 34	19.40 424.20 High 1.40 0.0050 6.65 U 8.91 U	08/01/1990 02/12/2023 <b>Date</b> 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022 06/16/1997	7.50 405.03 Low 0.05 0.0010 0.08 U 0.03 U	12/01/1990 04/01/2001 <b>Date</b> 06/23/1994 09/15/1992 09/15/1992 08/08/1990 02/26/1991 08/08/1990	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U 3.34 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	46 59 <b>No. of</b> <b>Samples</b> 34 34 34 34 65 34 65 34 65	19.40 424.20 High 1.40 0.0050 6.65 U 8.91 U 44.00	08/01/1990 02/12/2023 <b>Date</b> 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022 06/16/1997 06/14/2008	7.50 405.03 <b>Low</b> 0.05 0.0010 0.08 U 0.03 U 1.00	12/01/1990 04/01/2001 <b>Date</b> 06/23/1994 09/15/1992 09/15/1992 08/08/1990 02/26/1991 08/08/1990 05/28/1991	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U 3.34 U 3.45	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	46 59 <b>No. of</b> <b>Samples</b> 34 34 34 34 65 34 65 34 65 34	19.40 424.20 High 1.40 0.0050 6.65 U 8.91 U 44.00 0.20	08/01/1990 02/12/2023 <b>Date</b> 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022 06/16/1997 06/14/2008 11/02/2015	7.50 405.03 <b>Low</b> 0.05 0.0010 0.08 U 0.03 U 1.00 0.01	12/01/1990 04/01/2001 <b>Date</b> 06/23/1994 09/15/1992 09/15/1992 08/08/1990 02/26/1991 08/08/1990 05/28/1991 06/23/1994	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U 3.34 U 3.45 0.11	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	46 59 <b>No. of</b> <b>Samples</b> 34 34 34 34 65 34 65 34 65 34 65 34 34	19.40 424.20 High 1.40 0.0050 6.65 U 8.91 U 44.00 0.20 0.31	08/01/1990 02/12/2023 <b>Date</b> 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022 06/16/1997 06/14/2008 11/02/2015 03/09/2021	7.50 405.03 <b>Low</b> 0.05 0.0010 0.08 U 0.03 U 1.00 0.01 0.01 0.10	12/01/1990 04/01/2001 <b>Date</b> 06/23/1994 09/15/1992 09/15/1992 08/08/1990 02/26/1991 08/08/1990 05/28/1991 06/23/1994 07/29/2009	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U 3.34 U 3.45 0.11 0.20	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	46 59 <b>No. of</b> <b>Samples</b> 34 34 34 34 65 34 65 34 65 34 65 34 34 34	19.40 424.20 High 1.40 0.0050 6.65 U 8.91 U 44.00 0.20 0.31 1.82	08/01/1990 02/12/2023 <b>Date</b> 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022 06/16/1997 06/14/2008 11/02/2015 03/09/2021 07/31/1991	7.50 405.03 <b>Low</b> 0.05 0.0010 0.08 U 0.03 U 1.00 0.01 0.01 0.10 0.04	12/01/1990 04/01/2001 <b>Date</b> 06/23/1994 09/15/1992 09/15/1992 08/08/1990 02/26/1991 08/08/1990 05/28/1991 06/23/1994 07/29/2009 06/23/1994	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U 3.34 U 3.45 0.11 0.20 0.30	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	46 59 <b>No. of</b> <b>Samples</b> 34 34 34 34 65 34 65 34 65 34 65 34 34 34 34 34	19.40 424.20 High 1.40 0.0050 6.65 U 8.91 U 44.00 0.20 0.31 1.82 0.04	08/01/1990 02/12/2023 <b>Date</b> 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022 06/16/1997 06/14/2008 11/02/2015 03/09/2021 07/31/1991	7.50 405.03 0.05 0.0010 0.08 U 0.03 U 1.00 0.01 0.01 0.10 0.04 0.02	12/01/1990 04/01/2001 <b>Date</b> 06/23/1994 09/15/1992 09/15/1992 08/08/1990 02/26/1991 08/08/1990 05/28/1991 06/23/1994 06/23/1994 06/23/1994	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U 3.34 U 3.45 0.11 0.20 0.30 0.03	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved	46 59 <b>No. of</b> <b>Samples</b> 34 34 34 34 65 34 65 34 65 34 34 34 34 34 34 34 34	19.40           424.20           High           1.40           0.0050           6.65           U           8.91           U           44.00           0.20           0.31           1.82           0.04           4.10	08/01/1990 02/12/2023 <b>Date</b> 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022 06/16/1997 06/14/2008 11/02/2015 03/09/2021 07/31/1991 03/09/2020	7.50 405.03 0.05 0.0010 0.08 U 0.03 U 1.00 0.01 0.01 0.01 0.04 0.02 0.32	12/01/1990 04/01/2001 <b>Date</b> 06/23/1994 09/15/1992 09/15/1992 08/08/1990 02/26/1991 08/08/1990 05/28/1991 06/23/1994 06/23/1994 06/23/1994 09/15/1992	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U 3.34 U 3.45 0.11 0.20 0.30 0.03 2.25	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved	46 59 <b>No. of</b> <b>Samples</b> 34 34 34 34 65 34 65 34 65 34 34 34 34 34 34 34 34 34 55	19.40 424.20 High 1.40 0.0050 6.65 U 8.91 U 44.00 0.20 0.31 1.82 0.04 4.10 10.00	08/01/1990 02/12/2023 <b>Date</b> 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022 06/16/1997 06/14/2008 11/02/2015 03/09/2021 07/31/1991 03/09/2020 12/30/1996	7.50 405.03 0.05 0.0010 0.08 U 0.03 U 1.00 0.01 0.01 0.01 0.04 0.02 0.32 1.00	12/01/1990 04/01/2001 04/01/2001 06/23/1994 09/15/1992 09/15/1992 08/08/1990 02/26/1991 08/08/1990 05/28/1991 06/23/1994 06/23/1994 06/23/1994 09/15/1992 06/16/1992	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U 3.34 U 3.45 0.11 0.20 0.30 0.03 2.25 4.64	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	46 59 No. of Samples 34 34 34 34 65 34 65 34 34 34 34 34 34 34 34 34 34 34 34 34	19.40 424.20 High 1.40 0.0050 6.65 U 8.91 U 44.00 0.20 0.31 1.82 0.04 4.10 10.00 0.07	08/01/1990 02/12/2023 <b>Date</b> 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022 06/16/1997 06/14/2008 11/02/2015 03/09/2021 07/31/1991 03/09/2020 12/30/1996 05/26/1999	7.50 405.03 0.05 0.0010 0.08 U 0.03 U 1.00 0.01 0.01 0.04 0.02 0.32 1.00 0.01	12/01/1990 04/01/2001 04/01/2001 06/23/1994 09/15/1992 09/15/1992 08/08/1990 02/26/1991 08/08/1990 05/28/1991 06/23/1994 06/23/1994 06/23/1994 09/15/1992 06/16/1992 06/23/1994	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U 3.34 U 3.45 0.11 0.20 0.30 0.03 2.25 4.64 0.04	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved	46 59 No. of Samples 34 34 34 34 65 34 65 34 34 34 34 34 34 34 34 34 34 34 34 34	19.40 424.20 High 1.40 0.0050 6.65 U 8.91 U 44.00 0.20 0.31 1.82 0.04 4.10 10.00 0.07 U	08/01/1990 02/12/2023 <b>Date</b> 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022 06/16/1997 06/14/2008 11/02/2015 03/09/2021 07/31/1991 03/09/2020 12/30/1996 05/26/1999 06/16/1997	7.50 405.03 0.05 0.0010 0.08 U 0.03 U 1.00 0.01 0.04 0.02 0.32 1.00 0.01 U U	12/01/1990 04/01/2001 04/01/2001 02/201994 09/15/1992 09/15/1992 08/08/1990 02/26/1991 08/08/1990 05/28/1991 06/23/1994 06/23/1994 06/23/1994 09/15/1992 06/16/1992 06/23/1994 08/08/1990	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U 3.34 U 3.45 0.11 0.20 0.30 0.03 2.25 4.64 0.04 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved	46 59 No. of Samples 34 34 34 34 65 34 65 34 34 34 34 34 34 34 34 34 34 34 34 34	19.40 424.20 High 1.40 0.0050 6.65 U 8.91 U 44.00 0.20 0.31 1.82 0.04 4.10 10.00 0.07 U 0.10	08/01/1990 02/12/2023 <b>Date</b> 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022 06/16/1997 06/14/2008 11/02/2015 03/09/2021 07/31/1991 03/09/2020 12/30/1996 05/26/1999 06/16/1997 06/23/1994	7.50 405.03 0.05 0.0010 0.08 U 0.03 U 1.00 0.01 0.04 0.02 0.32 1.00 0.01 U 0.01 U 0.01 0.01	12/01/1990 04/01/2001 04/01/2001 02/01/2001 09/15/1992 09/15/1992 08/08/1990 02/26/1991 08/08/1990 05/28/1991 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 08/08/1990 06/23/1994	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U 3.34 U 3.45 0.11 0.20 0.30 0.03 2.25 4.64 0.04 U 0.10	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved	46 59 No. of Samples 34 34 34 34 65 34 65 34 34 34 34 34 34 34 34 34 34 34 34 34	19.40 424.20 High 1.40 0.0050 6.65 U 8.91 U 44.00 0.20 0.31 1.82 0.04 4.10 10.00 0.07 U 0.10 0.02	08/01/1990 02/12/2023 <b>Date</b> 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022 06/16/1997 06/14/2008 11/02/2015 03/09/2021 07/31/1991 03/09/2020 12/30/1996 05/26/1999 06/16/1997 06/23/1994	7.50 405.03 0.05 0.0010 0.08 U 0.03 U 1.00 0.01 0.04 0.02 0.32 1.00 0.01 U 0.01 U 0.01 0.01 0.01 0.01	12/01/1990 04/01/2001 04/01/2001 06/23/1994 09/15/1992 09/15/1992 08/08/1990 02/26/1991 08/08/1990 05/28/1991 06/23/1994 06/23/1994 08/08/1990 06/23/1994 08/08/1990	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U 3.34 U 3.45 0.11 0.20 0.30 0.03 2.25 4.64 0.04 U 0.10 0.02	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	46 59 No. of Samples 34 34 34 34 65 34 65 34 34 34 34 34 34 34 34 34 34 34 34 34	19.40 424.20 High 1.40 0.0050 6.65 U 8.91 U 44.00 0.20 0.31 1.82 0.04 4.10 10.00 0.07 U 0.07 U 0.10 0.02 26.00	08/01/1990 02/12/2023 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022 06/16/1997 06/14/2008 11/02/2015 03/09/2021 07/31/1991 03/09/2020 12/30/1996 05/26/1999 06/16/1997 06/23/1994 06/23/1994	7.50 405.03 0.05 0.0010 0.08 U 0.03 U 1.00 0.01 0.04 0.02 0.32 1.00 0.01 U 0.02 0.32 1.00 0.01 U 0.01 0.02 3.00	12/01/1990 04/01/2001 04/01/2001 06/23/1994 09/15/1992 09/15/1992 08/08/1990 02/26/1991 08/08/1990 05/28/1991 06/23/1994 06/23/1994 08/08/1990 06/23/1994 08/08/1990 06/23/1994 08/08/1990	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U 3.34 U 3.45 0.11 0.20 0.30 0.03 2.25 4.64 0.04 U 0.10 0.02 9.46	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	46 59 No. of Samples 34 34 34 34 65 34 65 34 34 34 34 34 34 34 34 34 34 34 34 34	19.40 424.20 High 1.40 0.0050 6.65 U 8.91 U 44.00 0.20 0.31 1.82 0.04 4.10 10.00 0.07 U 0.07 U 0.10 0.02 26.00 0.0020	08/01/1990 02/12/2023 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022 06/16/1997 06/14/2008 11/02/2015 03/09/2021 07/31/1991 03/09/2020 12/30/1996 05/26/1999 06/16/1997 06/23/1994 06/23/1994 06/23/1994	7.50 405.03 0.05 0.0010 0.08 U 0.03 U 1.00 0.01 0.04 0.02 0.32 1.00 0.01 U 0.01 U 0.01 0.02 0.32 1.00 0.01 U 0.01 0.02 3.00 0.0010	12/01/1990 04/01/2001 04/01/2001 06/23/1994 09/15/1992 09/15/1992 08/08/1990 02/26/1991 08/08/1990 05/28/1991 06/23/1994 06/23/1994 08/08/1990 06/23/1994 08/08/1990 06/23/1994 08/08/1990 06/23/1994	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U 3.34 U 3.45 0.11 0.20 0.30 0.03 2.25 4.64 0.04 U 0.10 0.02 9.46 0.0015	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	46 59 No. of Samples 34 34 34 34 65 34 65 34 34 34 34 34 34 34 34 34 34 34 34 34	19.40 424.20 High 1.40 0.0050 6.65 U 8.91 U 44.00 0.20 0.31 1.82 0.04 4.10 10.00 0.07 U 0.07 U 0.10 0.07 U 0.10 0.02 26.00 0.0020 34.00	08/01/1990 02/12/2023 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022 06/16/1997 06/14/2008 11/02/2015 03/09/2021 07/31/1991 03/09/2020 12/30/1996 05/26/1999 06/16/1997 06/23/1994 06/23/1994 06/23/1994 06/30/2009 07/31/1991 11/20/2001	7.50 405.03 0.05 0.0010 0.08 U 0.03 U 1.00 0.01 0.10 0.04 0.02 0.32 1.00 0.01 U 0.01 U 0.01 0.01 0.01 0.02 3.00 0.0010 1.50	12/01/1990 04/01/2001 04/01/2001 06/23/1994 09/15/1992 09/15/1992 08/08/1990 02/26/1991 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U 3.34 U 3.45 0.11 0.20 0.30 0.03 2.25 4.64 0.04 U 0.10 0.02 9.46 0.0015 17.26	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Barium, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Selenium, dissolved Silica, dissolved	46 59 No. of Samples 34 34 34 34 65 34 65 34 34 34 34 34 34 34 34 34 34 34 34 34	19.40 424.20 High 1.40 0.0050 6.65 U 8.91 U 44.00 0.20 0.31 1.82 0.04 4.10 10.00 0.07 U 0.07 U 0.10 0.07 U 0.10 0.02 26.00 0.0020 34.00 9,280	08/01/1990 02/12/2023 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022 06/16/1997 06/14/2008 11/02/2015 03/09/2021 07/31/1991 03/09/2020 12/30/1996 05/26/1999 06/16/1997 06/23/1994 06/23/1994 06/23/1994 06/30/2009 07/31/1991 11/20/2001 03/09/2020	7.50 405.03 0.05 0.0010 0.08 U 0.03 U 1.00 0.01 0.04 0.02 0.32 1.00 0.01 U 0.01 U 0.01 0.02 3.00 0.0010 1.50 710	12/01/1990 04/01/2001 04/01/2001 06/23/1994 09/15/1992 09/15/1992 08/08/1990 02/26/1991 08/08/1990 05/28/1991 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 08/08/1990 06/23/1991	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U 3.34 U 3.45 0.11 0.20 0.30 0.03 2.25 4.64 0.04 U 0.10 0.02 9.46 0.0015 17.26 4.359	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Selenium, dissolved Selenium, dissolved Silica, dissolved Sodium, dissolved	46 59 No. of Samples 34 34 34 34 65 34 65 34 34 34 34 34 34 34 34 34 34 34 34 34	19.40           424.20           High           1.40           0.0050           6.65           U           8.91           U           44.00           0.20           0.31           1.82           0.04           4.10           10.00           0.07           U           0.10           0.02           26.00           0.0020           34.00           9,280           2.58	08/01/1990 02/12/2023 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022 06/16/1997 06/14/2008 11/02/2015 03/09/2021 07/31/1991 03/09/2020 12/30/1996 05/26/1999 06/16/1997 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/30/2009 07/31/1991 11/20/2001 03/09/2020 03/26/1997	7.50 405.03 0.05 0.0010 0.08 U 0.03 U 1.00 0.01 0.01 0.04 0.02 0.32 1.00 0.01 U 0.01 U 0.01 0.02 3.00 0.0010 1.50 710 0.18	12/01/1990 04/01/2001 04/01/2001 06/23/1994 09/15/1992 09/15/1992 08/08/1990 02/26/1991 08/08/1990 05/28/1991 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 08/08/1990 06/23/1994 08/08/1990 06/23/1994 08/30/1990 08/30/1990	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U 3.34 U 3.45 0.11 0.20 0.30 0.30 0.03 2.25 4.64 0.04 U 0.10 0.02 9.46 0.0015 17.26 4.359 1.21	(°C) Ft. Units mg/l
Temperature (°C), Field Water Level, Field Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	46 59 No. of Samples 34 34 34 34 65 34 65 34 34 34 34 34 34 34 34 34 34 34 34 34	19.40 424.20 High 1.40 0.0050 6.65 U 8.91 U 44.00 0.20 0.31 1.82 0.04 4.10 10.00 0.07 U 0.07 U 0.10 0.07 U 0.10 0.02 26.00 0.0020 34.00 9,280	08/01/1990 02/12/2023 09/15/2010 08/22/1990 09/15/2010 06/16/1997 03/15/2022 06/16/1997 06/14/2008 11/02/2015 03/09/2021 07/31/1991 03/09/2020 12/30/1996 05/26/1999 06/16/1997 06/23/1994 06/23/1994 06/23/1994 06/30/2009 07/31/1991 11/20/2001 03/09/2020	7.50 405.03 0.05 0.0010 0.08 U 0.03 U 1.00 0.01 0.04 0.02 0.32 1.00 0.01 U 0.01 U 0.01 0.02 3.00 0.0010 1.50 710	12/01/1990 04/01/2001 04/01/2001 06/23/1994 09/15/1992 09/15/1992 08/08/1990 02/26/1991 08/08/1990 05/28/1991 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 06/23/1994 08/08/1990 06/23/1991	12.33 411.10 <b>Average</b> 0.61 0.0027 4.17 U 3.34 U 3.45 0.11 0.20 0.30 0.03 2.25 4.64 0.04 U 0.10 0.02 9.46 0.0015 17.26 4.359	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Appx. Table A-28: MMC-IRI-7 Annual Dissolution Surface Aquifer

DAUB & ASSOCIATES, INC. 2013 Start And Charles Contraction



NS Remote Wells – Sampled for Water Level Only										
	Depth to Water Level ft.									
Well / Ground Level (ft)	2019	2020	2021	2022	2023					
MMC-IRI-11 / 6613.6	468.00	468.30	468.80	469.00	468.80					
MWU-2 / 6441.0 (P&A 2023)	197.50	195.90	196.00	196.60	196.50					
MWA-2 / 6441.0 (P&A 2023)	199.40	199.40	199.60	200.00	200.00					
MWB-2 / 6441.0 (P&A 2023)	255.40	256.00	257.20	257.50	259.10					
MWD-1 / 6467.0 (P&A 2023)	329.50	329.90	329.70	330.30	330.90					
MWD-2 / 6641.0 (P&A 2023)	254.30	254.80	254.70	255.50	256.00					
TH75-6A / NA	296.40	298.56	298.65	299.06	299.06					
TH75-6B / NA	294.30	295.93	295.94	296.67	246.67					
TH75-11A / NA	413.80	413.03	411.27	404.35	NS					
TH75-11B / NA	494.80	495.55	496.02	485.53	NS					

#### Appx. Table A-29: Summary of 2023 Annual Remote Water Levels

NOTES:

The MWU-2, MWA-2, MWB-2, MWD-1, & MWD-2 wells were P&A'ed in the Summer of 2023.

The TH75-11A and TH75-11B wells were not measured for water level due to extenuating circumstance in 2023. The issue preventing measurement will be corrected and a 2024 measurement will be taken.





# **Natural Soda LLC**

# Appendix B: 2023 Potentiometric Surface Maps (Confidential)

DAUB & ASSOCIATES, INC.



Appx. Figure B-1: NS Average 2023 Potentiometric Surface A-Groove Aquifer (CONFIDENTIAL)








Appx. Figure B-2: NS Average 2023 Potentiometric Surface B-Groove Aquifer (CONFIDENTIAL)









# **Natural Soda LLC**

### Appendix C: 2023 Vegetation Monitoring & Reclamation Status Report

Prepared

# By

### **Rusty Roberts**

DAUB & ASSOCIATES, INC.

### Reclamation Status Report 2023 Vegetation Monitoring Results for Reclaimed Sites

Evaluating Status of Current Plant Communities on Six Reclaimed Sites in meeting Criteria for Successful Reclamation

> Prepared for: Natural Soda Rifle, Colorado

Prepared by: Rusty Roberts Meeker, Colorado

December 2023

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### Introduction

The Bureau of Land Management (BLM) and the State of Colorado require reclaimed lands to be revegetated in a manner that establishes a diverse, effective, and long-lasting vegetation cover that is equal or nearly so to the natural vegetation of the surrounding areas. Natural Soda's approved mine plan requires periodic monitoring to evaluate the success of revegetation efforts.

Vegetation cover, species composition, species density and ground cover data were collected from undisturbed reference area sites on Natural Soda's lease area near their current mining operations. The data collected from undisturbed areas is used as a baseline for evaluation of the vegetation cover, species composition, species density and ground cover data collected from reclaimed sites to determine if a site has met the criteria for successful reclamation.

Vegetative data was collected between October 6 through October 16, 2023, for six reclaimed pad sites in final reclamation status and for four undisturbed areas. The baseline data from undisturbed areas was collected from four native rangeland reference area sites on Natural Soda's lease area near the reclaimed sites being evaluated. Table 1 lists the six sites in final reclamation status for which data was collected in 2023.

### **Criteria for Successful Reclamation of Disturbed Areas**

The approved criteria for successful reclamation must reflect a plant community of at least five desirable plant species where no one species may exceed 70 percent relative cover and desired foliar cover, bare ground, and shrub and/or forb density must have 80 percent similarity in relation to the identified desired plant community.

The desired plant community referenced in the criteria refers to an ecological site present at or near the area of disturbance. Two ecological sites occur on the parts of the lease area being actively mined, a pinyon and juniper woodland site and a rolling loam rangeland site. The vegetative values in the criteria are based on the capability of a site in an early seral plant community, which is basically an herbaceous species dominated site with varying amounts of shrub species. The rolling loam rangeland site reflects more of the capability of a site in an early seral plant community, thus, data collected from the four-rolling loam native rangeland reference areas were used to evaluate the success of the plant community on each reclaimed site in achieving the reclamation criteria.

### Vegetation Sampling Methods Utilized to Measure Criteria for Successful Reclamation

Data was collected based upon recommendations in White River Field Office's Surface Reclamation Plan which require that vegetation cover, composition, and diversity data be gathered using quantitative methods to measure the six Core Terrestrial Indicators and Methods in BLM Technical Note 440. BLM approved sampling methods are found in Monitoring Manual for Grassland, Shrubland, and Savanna Ecosystems, Volume I and II: Quick Start.

The six core terrestrial indicators include:

- (1) <u>Bare Ground</u>: The amount of bare ground is accepted as one of the most sensitive indicators of resource condition in rangelands. A large percentage of bare ground can be an indicator of high erosion potential, low forage production, poor wildlife habitat, and increased risk of invasion by nonnative plant species.
- (2) <u>Vegetation Composition</u>: Vegetation composition data, including the cover of groups of species are indicators generated from the same data, and when used together, are sensitive to most changes and are useful when determining the status of key species in a plant community.
- (3) <u>Nonnative Invasive Plant Species</u>: The presence and cover of nonnative species is acquired as a component of vegetation composition. Nonnative invasive species can have the ability to significantly alter sustainability and site resilience.
- (4) <u>Plant Species of Management Concern</u>: The presence and cover of plant species of management concern is also acquired as a component of vegetation composition. Plant species of management concern can be sensitive to site disturbance, provide important ecosystem functions, or contribute to biological diversity.
- (5) <u>Vegetation Height</u>: The vertical structure of vegetation which can be used to characterize wildlife habitat and estimate wind erosion potential.
- (6) <u>Proportion of Soil Surface in Large Intercanopy Gaps</u>: Canopy gap intercept measures the proportion of a line covered by large gaps between plant canopies and is an important indicator of the potential for erosion.

Line-point intercept with plot-level species inventory was the vegetation monitoring technique used to measure the core indicators of bare ground, vegetation composition, non-native invasive plant species and plant species of management concern.

Line-point intercept is a rapid, accurate method for quantifying soil cover, including vegetation, litter, rocks and biological crusts. The theory behind this method is that if an infinite number of points are placed in a two-dimensional area, the cover of a plant species can be determined by counting the number of points that hit that species. These measurements are related to wind and water erosion, water infiltration, and the ability of the site to resist and recover from disturbance.

Gap intercept measurements were made along the line-point intercept transect line to provide information about the proportion of the line covered by large gaps between plants. Large gaps between plant canopies are important indicators of increased susceptibility to water erosion and runoff, wind erosion, weed invasion, and wildlife habitat.

A plot-level plant species inventory provides a rapid estimate of species richness. A search area at each site was utilized to record all plant species occurring within the plot. A thorough search of the plot can detect less-frequently occurring species that may not have been recorded in line-point intercept cover measurements.

Shrub and forb densities, also a criterion for successful reclamation, are not measured by the sampling methods used for the other criteria. Forb and shrub density measurements were taken from one-meter square density quadrants along the same line-point intercept transect line used for the other sampling techniques.

### Summary of Results for Reclaimed Sites in Achieving Reclamation Goals

Vegetation cover, plant species composition, ground cover and shrub and forb density data were collected from the six well pad sites in final reclamation status and from four native rangeland reference area sites near the reclaimed sites being evaluated. Data was collected between October 6 through October 16, 2023. Table 1 lists the sites in final reclamation status for which data was collected in 2023. The location of sites from which vegetative data was collected are illustrated on the attached location maps.

Table 1 is a summary of the progress of each site monitored in achieving successful reclamation. The site-specific monitoring results for each site will be discussed in detail later.

Table 1 - Summary of Results for Reclaimed Sites in Achieving Successful Reclamation Criteria													
			ccessful Reclam										
	species where n	desirable plant to one species may ent relative cover	density must	t have 80 percen	ound, and shruk t similarity in ro ndisturbed nati	elation to the							
	the number of desired plant species present	the relative cover of the desired species with the greatest cover	% similarity of desired foliar cover	% similarity of bare ground	% similarity of shrub density	% similarity of forb density	Criteria						
Site	2023 Data Collected for Sites in Final Reclamation Status												
Pad													
93-2M	15 species	18.7%	88%	99%	39%	14%	No						
Pad BG-8	21 species	28.8%	75%	122%	27%	3%	No						
Pad G	30 species	15.3%	96%	127%	67%	96%	Yes						
Pads IRI-3+	17 species	16.7%	85%	96%	6%	38%	No						
Pad T	20 species	6.7%	50%	80%	78%	40%	No						
Pad U	12 species	8.7%	50%	86%	52%	10%	No						
	20	23 Baseline Data C	ollected from Na	tive Rangeland	<b>Reference</b> Area	S							
	26 species	18.5%	63.0%	23.0%	1.70%	3.65%							
Note: values in red are below the criteria required for successful reclamation													

### Vegetation Sampling Methods and Procedures for Reclaimed Sites and Reference Areas

The line-point intercept with plot-level species inventory was the vegetation sampling protocol used on both the reclaimed sites and associated reference areas. The procedure involves random placement of a transect line (measuring tape) as the base for data collection. Values for foliar cover, basal cover, species composition and bare ground were measured at specific points along the line. Gaps in vegetation canopy were measured along the same tape line. Density quadrants were placed adjacent to the line at specific points.

A 25-meter tape was used as the baseline transect for collecting data from the 4 rolling loam reference areas and from the 6 reclaimed sites. One transect line was used to collect data from each of the 4 reference areas. Three transect lines were used to collect data from each of the 6 reclaimed sites.

The following techniques were used to collect the sample data:

- The beginning and ending points of each transect were recorded using a GPS receiver. Azimuths from the 0-meter to the 25-meter point were recorded.
- Photographs were taken at each transect that show vegetation features at the time of sampling.
- Point count data were collected at one half-meter intervals along a 25-meter tape using a thin, straight metal rod (pin flag) for a total of fifty samples taken along each transect.
  - The first plant species in the canopy hit by the drop of a pin flag at each sample point was recorded by species in the "Top Layer". The total of top layer hits was used to determine the total foliar cover for the study site and the total foliar cover for each species hit in the top layer.
  - Subsequent plant species encountered at each sample point and vegetative litter hits were recorded in the "Lower Canopy Layers". Vegetative litter was recorded as either unattached herbaceous or woody litter.
  - Species composition based upon total of all plant species encountered in the top layer and the lower layers at each sample point and recorded by species and summarized by plant group.
  - Soil surface hits were recorded as plant species basal intercepts, lichen crust, moss, embedded litter, duff, rock, or bare soil. Bare ground percent was determined by a bare soil hit with no canopy intercepts in the top and lower canopy layers.
- Canopy gaps were recorded directly below the transect tape line. Only perennial plant species were used in the vegetative canopy. Non-native species if present were not included as part of the canopy. Gaps larger than 20 centimeters were recorded for the length of each transect. Gaps were totaled into gap sizes (21 to 50; 51 to 100; 101 to 200; >200). Though the gap data is not used in evaluating reclamation criteria, it was collected as a visualization of perennial species distribution and cover.
- Forb and shrub density data were taken from one-meter square density quadrants alongside the same line-point intercept transect line used for the other sampling techniques. Quadrants were placed at every 5<sup>th</sup> sample point along the transect tape for a total of 10 one-meter density quads for each transect. Only desirable forb and shrub densities are required in the criteria for successful reclamation. The total number of desirable forb and shrub species rooted in each quad were counted and recorded by species and summarized by plant group. Densities for grasses or trees were not collected.
- A plot-level plant species inventory was conducted within a search area at each site. The search area for reclaimed sites was within the original disturbance at the site. In addition to those plant species recorded during sampling, other species not encountered during sampling but were observed in the sample area were recorded for species richness.

### Vegetation Sampling Results for Nearby Native Rangeland Reference Areas

Vegetation cover, species composition, species density and ground cover data were collected from four rolling loam rangeland sites from October 6 through October 16, 2023. Transects were established in the 4 rolling loam sites which represent the site characteristics near the reclaimed sites being evaluated. The vegetative data collected from the 4 reference areas were used to evaluate the success of the plant community on each reclaimed site in achieving the reclamation criteria.

Values for foliar cover, basal cover, species composition and bare ground were collected from four 25 meter transects for a total of 200 sample points. Values for forb and shrub densities were collected from 40 one-meter square quadrants. Table 2 summarizes the data collected in 2023 in comparison to the data that was collected in 2022.

	Table 2- Rolling Loam Native Rangeland Reference Area Vegetation Cover, Species Composition, Species Density & Ground Cover												
	veg			Density	Density Data <sup>2</sup>								
			Number of Species			% Foliar Cover		% Basal Cover		Species Composition		Forb/Shrub Density (#/m <sup>2</sup> )	
Plant C	Plant Group				2022	2023	2022	2023	2022	2023	2022	2023	
Perennial Grasse		5	7	38.5	42.0	6.5	8.0	63.45	60.38	n/a	n/a		
Invasive Non-Native Grasses			1	1	4.0	4.0	0	0	6.9	6.29	n/a	n/a	
Desirable Forbs			22	13	4.5	7.0	0	0	8.97	12.58	5.03	3.65	
Invasive and Nor	n-Native F	orbs	1	2	0	1.5	0	0	0	1.89	n/a	n/a	
Shrubs			5	6	13.5	14.0	0.5	0	20.68	18.87	1.74	1.70	
Vegetation Tota	ls		34	29	60.5	68.5	7.0	8.0	100.0	100.0	6.77	5.35	
			Line	-Point Ir	ntercept (	Soil Surfa	ice Cover	r Data <sup>3</sup>					
Percent	Dama Ca	d	D:a	4: a. C	-	rbaceous		J T :44		)£f	D	l.	
Cover by	Bare G			tic Crus	-	Litter		dy Litter		Duff		ock	
Туре	2022	2023	2022						2022	2023	2022	2023	
	27.5 23				.0 38.	-				0.0	0.0	0.0	
<sup>1</sup> Sum of data from 4 randomly placed transects with 50 sample points collected from each transect. Foliar cover based upon													

1<sup>st</sup> plant species encountered in the canopy at each sample point. Species composition based upon total of all plant species encountered at each sample point.

<sup>2</sup> Sum of density data collected from ten 1-meter square quadrants along each transect. Only desirable forb and shrub densities were recorded based upon reclamation criteria.

<sup>3</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of ground cover from the top layer thru the lower layers to the soil surface. Values for bare ground have no vegetative, litter or rock cover above the soil surface.

The data collected from the 4 reference areas showed an increase in foliar cover of all plant groups except for non-native grasses. The cover of non-native grasses remained constant with that measured in 2022. No cover of non-native forb species was recorded in 2022 but they accounted for 2 percent of the total cover measured in 2023.

Foliar cover of desirable species increased 12 percent above values measured in 2022. Foliar cover of perennial grasses increased 9 percent and shrub cover increased 4 percent. The cover of desirable forbs increased 56 percent from values measured in 2022.

Even though the desirable forbs showed a significant increase in foliar cover in 2023, their densities declined 27 percent. Likewise, there were 22 species of desirable forbs noted in the study areas in 2022 compared to only 13 in 2023, a 40 percent decline.

The decline in desirable forb species in 2023 is most likely due to the October data collection versus the September data collection of 2022. Lot of the forb species not observed in October are early maturing species that have completed their seasonal growth, and their above ground presence has withered.

There was a 16 percent decline in the amount of bare ground measured in 2023 because of a 21 percent increase in amount of herbaceous litter and the 13 percent increase in total foliar cover. The canopy gaps between perennial species, also an indicator of ground cover, declined 14 percent in 2023.

The specific vegetation sampling data collected from the 4 rolling loam rangeland sites are presented in Appendix A. Data in the appendix include (1) vegetation cover, ground cover, species composition, and forb and shrub densities; (2) the scientific and common names of each plant species encountered; (3) GPS coordinate data for the transect start and end points; (4) intercanopy gaps and (5) photographs of each transect.

### Monitoring Results and Evaluation of Criteria for Sites in Final Reclamation Status

Vegetation cover, species composition, species density and ground cover data were collected from the area of disturbance for 6 sites in final reclamation status (pads 93-2M, BG-8 and corehole pads G, IRI-3+, T and U). Locations are noted on the attached location maps.

Vegetation sampling data collected for the 6 reclaimed sites are presented in Appendix B through Appendix G.

- Appendix B reclaimed pad 93-2M.
- Appendix C reclaimed pad BG-8.
- Appendix D reclaimed corehole pad G.
- Appendix E combined reclaimed corehole pads IRI-3, MW-1, PW-1, PW-2.
- Appendix F reclaimed corehole pad T.
- Appendix G reclaimed corehole pad U.

Vegetation sampling data in the appendixes include (1) vegetation cover, ground cover, species composition, and forb and shrub densities; (2) the scientific and common names of each plant species encountered; (3) GPS coordinate data for the transect start and end points; (4) intercanopy gaps and (5) photographs of each transect.

### Well Pad 93-2M

Data was collected for this site on October 6, 2023. Three 25 meter transects were placed in a spoke pattern on the pad with 50 sample points on each transect for cover data. Ten one-meter square density quadrants were placed along each transect. Data collected from this site includes vegetative foliar and basal cover, species composition, forb and shrub densities all summarized by plant group. In addition, ground cover data was collected for dead vegetative litter, bare ground, and surface rock.

The data collected in 2023 is summarized in Table 3 from the sampling data presented in Appendix Table B1. Each plant species encountered at this site is listed in Table B1. As shown in Table B1 there is a good establishment of the perennial grasses with uniform distribution across much of the site.

The value for foliar cover, basal cover, species composition and bare ground were collected from three 25 meter transects for a total of 150 sample points. Values for forb and shrub densities were collected from 30 one-meter square quadrants. Table 3 summarizes the data collected in 2023 in comparison to the data that was collected in 2022.

Vegetation Cover, Species Composition, Species Density & Ground Cover													
					Density Data <sup>2</sup>								
			Number of Species			% Foliar Cover		% Basal Cover		Species Composition		Forb/Shrub Density (#/m <sup>2</sup> )	
Plant (	Froup		2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	
Perennial Grasses			8	8	39.4	45.3	6.0	6.7	65.96	72.45	n/a	n/a	
Invasive Non-Native Grasses			1	1	8.0	4.7	0.0	0.0	19.15	9.18	n/a	n/a	
Desirable Forbs			3	3	0.7	2.7	0.0	0.0	1.06	4.08	0.33	0.50	
Invasive and No.	n-Native F	orbs	1	2	2.7	2.0	0.0	0.0	4.26	3.06	n/a	n/a	
Shrubs			4	4	6.0	7.3	0.0	0.0	9.57	12.24	1.00	0.67	
Vegetation Tota	ıls		17	18	56.8	62.0	6.0	6.7	100.0	100.0	1.33	1.17	
			Line	Point Ir	tercept	Soil Surfa	ice Cover	· Data <sup>3</sup>					
Description					He	rbaceous							
Percent	Bare G	round	Bio	tic Crus	t	Litter	Woo	dy Litter	I	Duff	Re	ock	
Cover by Type	2022	2023	2022	202	3 202	2 2023	2022	2023	2022	2023	2022	2023	
	28.0	23.3	0.	0 0	.0 56.	3 56.	) 1.3	1.3	0.0	0.0	0.0	0.0	

<sup>1</sup> Sum of data from 3 randomly placed transects with 50 sample points collected from each transect. Foliar cover based upon 1<sup>st</sup> plant species encountered in the canopy at each sample point. Species composition based upon total of all plant species encountered at each sample point.

<sup>2</sup> Sum of density data collected from ten 1-meter square quadrants along each transect. Only desirable forb and shrub densities were recorded based upon reclamation criteria.

<sup>3</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of ground cover from the top layer thru the lower layers to the soil surface. Values for bare ground have no vegetative, litter or rock cover above the soil surface.

The data collected from this site in 2023 showed an increase in foliar cover for desirable species and declines for non-native grasses and non-native forb species. Foliar cover of desirable species increased 20 percent above values measured in 2022. The foliar cover of perennial grasses increased 15 percent and shrub cover increased 22 percent. The cover of desirable forbs nearly trebled from values measured in 2022.

The cover for non-native grasses declined 41 percent and non-native forb species declined 26 percent in 2023. In comparison with reference areas the cover of non-native grasses was 18 percent greater and non-native forb species cover was 33 percent greater.

In 2023, the densities of desirable forb species increased 34 percent and the densities of shrubs decreased 33 percent. In comparison with reference areas, desirable forb species were only 14 percent of that on the reference areas and shrub densities were 39 percent of that on the reference areas.

There was a 17 percent decline in the amount of bare ground measured in 2023 because of a one percent increase in amount of herbaceous litter and the nine percent increase in total foliar cover.

The canopy gaps between perennial species, also an indicator of ground cover, declined 24 percent in 2023.

The foliar cover of desirable species on the site was 12 percent less than that measured on the reference areas. In comparison with values measured on the reference areas, the cover of perennial grasses was 8 percent greater, and their composition was 4 percent greater. The cover non-native grass was 18 percent greater and non-native forb species was 33 percent greater than measured on the reference areas.

Both the cover and composition of desirable forbs and shrubs were well below that on the reference areas, only 39 percent for forbs and 48 percent for shrubs. The density of desirable forbs on the site was 14 percent and the density of shrubs was 39 percent of that on reference areas.

The amount of bare ground on this site was only 1 percent greater than that measured on the reference areas. The amount of herbaceous litter on this site was 14 percent greater than that on the reference areas. The canopy gaps between perennial species were 2 percent larger on the reference areas than measured on this site.

Table 4 is a comparison of the data collected for reclaimed well pad 93-2M with that of the rolling loam rangeland reference areas. Only the data required to access the success of achieving successful reclamation is used in Table 4.

Table 4 – Compar	Table 4 – Comparison of Reclamation Criteria Elements with Native Rangeland Reference Areas											
Site# desired plant species% desired foliar cover% bare groundshrub density (#/m²)forb density (#/m²)												
Reclaimed Pad 93-2M	15 species	55.3	23.3	0.67	0.50							
Reference Area <sup>1</sup>	26 species	63.0	23.0	1.70	3.65							
1 The manage of four ratios are clarify a reference are and as the backing for mali sting success of the												

<sup>1</sup> The average of four native rangelands reference areas were used as the baseline for evaluating success of the reclamation criteria.

### Evaluation of the reclamation efforts of the disturbance on Well Pad 93-2M:

- There are 15 desirable plant species established on the site (8 perennial grasses, 3 desirable forbs, and 4 shrubs) meeting the requirement of at least five plant species.
- Russian wildrye (*Psathyrostachys juncea*) was the desired species with the greatest relative cover at 18.7 percent meeting the requirement that no one species can exceed 70 percent relative cover.
- The foliar cover of desirable species on the site was 88 percent of that on the native rangeland reference area exceeding the requirement of 80 percent similarity.
- The amount of unprotected bare ground on the site was 1 percent greater than that on the native rangeland reference area which equates to 99 percent similarity, exceeding the required 80 percent similarity.
- The density of desirable forbs and shrubs on the site in comparison with the native rangeland reference areas was 14 percent and 39 percent, respectively. Neither forb density nor shrub density have met the requirement of 80 percent similarity.

The plant community does meet the criteria for species diversity, desired foliar cover, and the amount of bare ground. The site does not meet the criteria for the densities of desirable forbs or shrubs. This site does not meet all the criteria for successful reclamation of the disturbance at the site.

### Pad BG-8

Data was collected for this site on October 6, 2023. Three 25 meter transects were placed in a spoke pattern on the pad with 50 sample points on each transect for cover data. Ten one-meter square density quadrants were placed along each transect. Data collected from this site includes vegetative foliar and basal cover, species composition, forb and shrub densities and ground cover all summarized by plant group. In addition, ground cover data was collected for dead vegetative litter, bare ground, and surface rock.

The value for foliar cover, basal cover, species composition and bare ground were collected from three 25 meter transects for a total of 150 sample points. Values for forb and shrub densities were collected from 30 one-meter square quadrants. The data collected in 2023 is summarized in Table 5 from the sampling data presented in Appendix Table C1. Each plant species encountered at this site is listed in Table C1. Table 5 summarizes the data collected in 2023 in comparison to the data that was collected in 2022.

	Veg	etatior	Cover.				laimed P tion, Spe		sity & Gr	ound Co	over		
									ept Data			Density	v Data <sup>2</sup>
			Number of Species			% Fo Cov		% B Co		Spe Comp	cies osition	Forb/Shrub Density (#/m <sup>2</sup> )	
Plant C	Froup		2022	2023	20	)22	2023	2022	2023	2022	2023	2022	2023
Perennial Grasse	s		9	10	4	1.4	46.7	12.0	10.0	66.00	63.97	n/a	n/a
Invasive Non-Na	tive Grass	es	1	1		4.7	8.0	0.0	0	8.00	12.61	n/a	n/a
Desirable Forbs         5         6         0.0         0.7         0.0         0         0.12         0.10										0.10			
Invasive and Non-Native Forbs         1         2         14.0         8.7         0.0         0         24.00         13.51         n/a         n/a													
Shrubs         4         5         1.4         6.0         0.0         0         2.00         8.11         0.50         0.46													
Vegetation Totals         20         24         61.5         70.1         12.0         10.0         100.0         0.62         0.56													
Line-Point Intercept Soil Surface Cover Data <sup>3</sup>													
Percent	Bare G	round	Bio	tic Cru	st		·baceous Litter		dy Litter	•	Duff	R	ock
Cover by Type	2022	2023	202	2 202	23	2022	2 2023	2022	2023	2022	2023	2022	2023
	28.7	18.0		÷	0.0	31.3						1.3	1.3
<ul> <li><sup>1</sup> Sum of data from 3 randomly placed 25 meter transects with 50 sample points collected from each transect. Foliar cover based upon 1<sup>st</sup> plant species encountered in the canopy at each sample point. Species composition based upon total of all plant species encountered at each sample point.</li> <li><sup>2</sup> Sum of density data collected from ten 1-meter square quadrants along each transect. Only desirable forb and shrub densities were recorded based upon reclamation criteria.</li> <li><sup>3</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of ground cover from the top layer thru the layer layer to the soil surface. Values for hare ground have no vegetative litter or rock cover.</li> </ul>													
•	layer thru the lower layers to the soil surface. Values for bare ground have no vegetative, litter or rock cover above the soil surface.												

The data collected from this site in 2023 showed an increase in foliar cover for desirable species. Foliar cover of desirable species increased 20 percent above values measured in 2022. The foliar

cover of perennial grasses increased 13 percent. Both shrub cover and cover of desirable forbs showed significant increases in 2023. Shrub cover increased 3 times and desirable forb cover increased 6 times above values measured in 2022.

The cover for non-native grasses increased 70 percent and cover of non-native forb species declined 38 percent of the values measured in 2022. In comparison with reference areas the cover of non-native grasses was 2 times greater and non-native forb species cover was nearly 5 times greater.

In 2023, the densities of desirable forb species declined 17 percent and the densities of shrubs declined 8 percent. In comparison with reference areas, desirable forb species were only 3 percent of that on the reference areas and shrub densities were 27 percent of that on the reference areas.

There was a 37 percent decline in the amount of bare ground measured in 2023 because of a 43 percent increase in amount of herbaceous litter and the 14 percent increase in total foliar cover. The canopy gaps between perennial species, also an indicator of ground cover, declined 28 percent in 2023.

In comparison with values measured on the reference areas, the foliar cover of desirable species on the site was 15 percent less. The cover non-native grass was 100 percent greater and non-native forb species was nearly 5 times greater than measured on the reference areas.

The amount of bare ground on this site was 22 percent below that measured on the reference areas. The amount of herbaceous litter on this site was 10 percent greater than that on the reference areas. The canopy gaps between perennial species were 1 percent larger on the reference areas than measured on this site.

Table 6 is a comparison of the data collected for reclaimed Pad BG-8 with that of the rolling loam rangeland reference areas. Only the data required to access the success of achieving successful reclamation is used in Table 6.

Table 6 – Compar	rison of Reclamatio	on Criteria Elem	ents with Nativ	ve Rangeland Refe	rence Areas					
Site	# desired plant species	% desired foliar cover	% bare ground	shrub density (#/m <sup>2</sup> )	forb density (#/m <sup>2</sup> )					
Reclaimed Pad BS-8	21 species	53.4	18.0	0.46	0.10					
Reference Area <sup>1</sup>	26 species	63.0	23.0	1.70	3.65					
<sup>1</sup> The average of four native rangelands reference areas were used as the baseline for evaluating success of the reclamation criteria.										

### Evaluation of the reclamation efforts of the disturbance on Pad BG-8:

• There are 21 desirable plant species established on the site (10 perennial grasses, 6 desirable forbs, and 5 shrubs) meeting the requirement of at least five plant species.

- Slender wheatgrass (*Elymus trachycaulus*) was the desired species with the greatest relative cover at 28.8 percent meeting the requirement that no one species can exceed 70 percent relative cover.
- The foliar cover of desirable species on the site was 75 percent of that on the native rangeland reference areas not meeting the requirement of 80 percent similarity.
- The amount of unprotected bare ground on the site was 22 percent less than that on the native rangeland reference areas which equates to 122 percent similarity, meeting the required 80 percent similarity.
- The density of forbs and shrubs on the site in comparison with the native rangeland reference areas was 3 percent and 27 percent, respectively. Neither forb density nor shrub density have met the requirement of 80 percent similarity.

The plant community meets only the species diversity and bare ground criteria but not the desired foliar cover, shrub density and desirable forb density criteria necessary for successful reclamation of the disturbance at this site. This site does not meet all the criteria for successful reclamation of the disturbance at the site.

### **Corehole Pad G**

Vegetation sampling data was collected on October 10, 2023. Three 25 meter transects were randomly placed on the pad with 50 sample points on each transect for cover data. Ten one-meter square density quadrants were placed along each transect. Data collected from this site includes vegetative foliar and basal cover, species composition, forb and shrub densities and ground cover all summarized by plant group. In addition, ground cover data was collected for dead vegetative litter, bare ground, and surface rock.

The value for foliar cover, basal cover, species composition and bare ground were collected from three 25 meter transects for a total of 150 sample points. Values for forb and shrub densities were collected from 30 one-meter square quadrants. Table 7 summarizes the data collected in 2023 in comparison to the data that was collected in 2022. The 2023 data in Table 7 is summarized from data presented in Appendix Table D1. Each plant species encountered at this site is listed in Table D1.

Table 7 - Reclaimed Exploration Pad G           Vegetation Cover, Species Composition, Species Density & Ground Cover											
			Line-Poi	nt Canop	y Interc	ept Data	1		Density	v Data <sup>2</sup>	
	Number of Species% Foliar% BasalSpeciesForb/ShrubCoverCoverCoverCompositionDensity (#/m²)										
Plant Group         2022         2023         2023										2023	
Perennial Grasses	9	9	33.3	47.3	7.4	8.0	53.62	67.21	n/a	n/a	
Invasive Non-Native Grasses	1	1	3.3	3.3	0.0	0	8.25	7.38	n/a	n/a	
Desirable Forbs	17	15	3.4	6.0	0.0	0.7	6.18	10.66	3.0	3.50	
Invasive and Non-Native Forbs	1	2	13.3	5.4	0.0	0	23.71	6.55	n/a	n/a	
Shrubs	6	6	5.4	6.0	0.0	0.7	8.24	8.20	1.04	0.67	
Vegetation Totals	34	33	58.7	68.0	7.4	9.4	100.0	100.0	4.04	4.17	
Line-Point Intercept Soil Surface Cover Data <sup>3</sup>											

Percent	Bare Ground E		Biotic	Biotic Crust		Herbaceous Litter		Woody Litter		Duff		Rock	
Cover by	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	
Туре	30.7	16.7	0.0	0.0	23.7	58.7	4.0	4.7	0.0	0.0	0.0	0.0	

<sup>1</sup> Sum of data from 3 randomly placed transects with 50 sample points collected from each transect. Foliar cover based upon 1<sup>st</sup> plant species encountered in the canopy at each sample point. Species composition based upon total of all plant species encountered at each sample point.

<sup>2</sup> Sum of density data collected from ten 1-meter square quadrants along each transect. Only desirable forb and shrub densities were recorded based upon reclamation criteria.

<sup>3</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of ground cover from the top layer thru the lower layers to the soil surface. Values for bare ground have no vegetative, litter or rock cover above the soil surface.

The data collected from this site in 2023 showed a 29 percent increase in foliar cover for desirable species above values measured in 2022. The foliar cover of perennial grasses increased 30 percent. Both shrub cover and cover of desirable forbs showed increases in 2023. Shrub cover increased 10 percent and desirable forbs cover increased 43 percent above values measured in 2022. In comparison with values measured on the reference areas, the foliar cover of desirable species on the site was 96 percent of that on the reference areas.

The cover for non-native grasses remained constant and cover of non-native forb species declined 59 percent of the values measured in 2022. In comparison with reference areas, the cover of non-native grasses was 18 percent less than and non-native forb species cover was 2.6 times greater than the values measured on the reference areas.

In 2023, the densities of desirable forb species increased 14 percent and the densities of shrubs declined 36 percent of the values measured in 2022. In comparison with reference areas, desirable forb species were 96 percent of that on the reference areas and shrub densities were 61 percent of that on the reference areas.

There was a 46 percent decline in the amount of bare ground measured in 2023 because of a 60 percent increase in amount of herbaceous litter and the 16 percent increase in total foliar cover. The canopy gaps between perennial species, also an indicator of ground cover, declined 28 percent in 2023.

The amount of bare ground on this site was 27 percent below that measured on the reference areas. The amount of herbaceous litter on this site was 18 percent greater than that on the reference areas. The canopy gaps between perennial species were 4 percent larger on this site than on the reference areas.

Table 8 is a comparison of the data collected for corehole pad G with that from the rolling loam rangeland reference areas. Only the data required to access the success of achieving successful reclamation is used in Table 8.

Table 8 – Compar	ison of Reclamatio	on Criteria Elem	ents with Nativ	ve Rangeland Refe	erence Areas						
Site	# desired plant% desired% bareshrub densityforb densityspeciesfoliar coverground(#/m²)(#/m²)										
Corehole Pad G	30 species	59.3	16.7	0.67	3.50						
Reference Area <sup>1</sup>	26 species	63.0	23.0	1.70	3.65						
<sup>1</sup> The average of four native rangelands reference areas were used as the baseline for evaluating success of the reclamation criteria.											

### **Evaluation of the reclamation efforts of the disturbance on Corehole Pad G:**

- There are 30 desirable plant species established on the site (9 perennial grasses, 15 desirable forbs, and 6 shrubs) meeting the requirement of at least five plant species.
- Slender wheatgrass (*Elymus trachycaulus*) was the desired species with the greatest relative cover at 15.3 percent meeting the requirement that no one species can exceed 70 percent relative cover.
- The foliar cover of desirable species on the site was 96 percent of that on the native rangeland reference areas, meeting the required 80 percent similarity.
- The amount of unprotected bare ground on the site was 27 percent less than that on the native rangeland reference areas which equates to 127 percent similarity, exceeding the required 80 percent similarity.
- The density of desirable forbs and shrubs on the site in comparison with the native rangeland reference areas was 96 percent and 67 percent, respectively. The criteria only require either desirable forbs density or shrub density meet the requirement of 80 percent similarity. The desirable forbs density of 96 percent similarity has met the required criteria.

The plant community on this site does meet the criteria for species diversity, desired foliar cover, desirable forb density and bare ground. This site does meet all the criteria for successful reclamation of the disturbance at the site.

### Corehole Pads IRI-3, MW-1, PW-1, PW-2

This site includes corehole pads IRI-3, MW-1, PW-1, and PW-2. Vegetation sampling data was collected on October 10, 2023. Three 25 meter transects were randomly placed on the site with 50 sample points on each transect for cover data. Ten one-meter square density quadrants were placed along each transect. Data collected from this site includes vegetative foliar and basal cover, species composition, forb and shrub densities and ground cover all summarized by plant group. In addition, ground cover data was collected for dead vegetative litter, bare ground, and surface rock.

The 2023 data in Table 9 is summarized from data presented in Appendix Table E1. Each plant species encountered at this site is listed in Table E1. As shown in Table E1 there is a good representation of the seeded species established on the site.

The value for foliar cover, basal cover, species composition and bare ground were collected from three 25 meter transects for a total of 150 sample points. Values for forb and shrub densities were collected from 30 one-meter square quadrants. Table 9 summarizes the data collected in 2023 in comparison to the data that was collected in 2022.

	]	<b>Fable</b>	9 - Recla	imed Co	orehole	Pads IRI-	3, MW-1,	PW-1, a	nd PW-2			
	Veg	etatio	ı Cover,	Species	Compo	sition, Spo	ecies Den	sity & Gr	round Co	ver		
					Density Data <sup>2</sup>							
			Number of		% ]	% Foliar		lasal	Spe	cies	Forb/Shrub	
				cies	C	over	Co	ver	Comp	osition	Density	(#/m <sup>2</sup> )
Plant C	Plant Group				2022	2023	2022	2023	2022	2023	2022	2023
Perennial Grasses			9	7	42.7	50.0	6.1	10.0	83.75	89.65	n/a	n/a
Invasive Non-Na	es	1	1	6.0	2.0	0.0	0.0	11.25	3.45	n/a	n/a	
Desirable Forbs			9	6	0.0	0.0	0.0	0.0	0.0	0.0	1.14	0.23
Invasive and Nor	n-Native F	orbs	1	1	0.0	0.7	0.0	0.0	0.0	1.15	n/a	n/a
Shrubs			4	4	2.7	3.3	0.0	0.0	5.00	5.75	0.76	0.64
Vegetation Tota	ls		24	19	51.4	56.0	6.1	10.0	100	100.0	1.90	0.87
			Line	-Point I	ntercept	Soil Surf	ace Cove	r Data <sup>3</sup>				
Percent Cover by	Bare G	round	Bio	tic Crus		erbaceous Litter		dy Litter	· 1	Duff	R	ock
Cover by Type 2022 202		2023	2022	2 202	202	22 2023	3 2022	2023	2022	2023	2022	2023
39.3 24			) 0.	0 0	).0 31	.3 58.	0 0.6	<b>6</b> 0.'	7 0.0	0.0	1.3	0.7
<sup>1</sup> Sum of data from 3 randomly placed transects with 50 sample points collected from each transect. Foliar cover based upon												
1 <sup>st</sup> plant species encountered in the canopy at each sample point. Species composition based upon total of all plant species												
encountered at each sample point.												

<sup>2</sup> Sum of density data collected from ten 1-meter square quadrants along each transect. Only desirable forb and shrub densities were recorded based upon reclamation criteria.

<sup>3</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of ground cover from the top layer thru the lower layers to the soil surface. Values for bare ground have no vegetative, litter or rock cover above the soil surface.

The data collected from this site in 2023 showed a 17 percent increase in foliar cover for desirable species above values measured in 2022. The foliar cover of perennial grasses increased 15 percent. The shrub cover increased 18 percent. As in 2022, no foliar cover of desirable forbs was recorded in the data collected in 2023. In comparison with values measured in 2023, the foliar cover of desirable species on this site was 85 percent of that on the reference areas.

The cover for non-native grasses declined 67 percent of the values measured in 2022. There was no foliar cover of non-native forb species recorded in 2022, however in 2023, their cover accounted for 1.3 percent of the cover values measured. In comparison with reference areas, the cover of non-native grasses was 50 percent below and non-native forb species cover was 53 percent below the values measured on the reference areas.

In 2023, the densities of desirable forb species declined 80 percent and the densities of shrubs declined 16 percent of the values measured in 2022. In comparison with reference areas, desirable forb species were 6 percent of that on the reference areas and shrub densities were 38 percent of that on the reference areas.

There was a 39 percent decline in the amount of bare ground measured in 2023 because of a 46 percent increase in amount of herbaceous litter and the 8 percent increase in total foliar cover. The canopy gaps between perennial species, also an indicator of ground cover, declined 12 percent in 2023.

The amount of bare ground on this site was 4 percent above that measured on the reference areas. The amount of herbaceous litter on this site was 17 percent greater than that on the reference areas. The canopy gaps between perennial species were 15 percent larger on this site than on the reference areas.

Table 10 is a comparison of the data collected for exploration corehole pad IRI-3, MW-1, PW-1 and PW-2 with that from the rolling loam rangeland reference area. Only the data required to access the success of achieving successful reclamation is used in Table 10.

Table 10 – Comparison of Reclamation Criteria Elements with Native Rangeland Reference Areas											
Site	# desired plant species	% desired foliar cover	% bare ground	shrub density (#/m <sup>2</sup> )	forb density (#/m <sup>2</sup> )						
Corehole IRI-3, MW- 1, PW-1 and PW-2	17 species	53.3	24.0	0.64	0.23						
Reference Area <sup>1</sup>	26 species	63.0	23.0	1.70	3.65						
<sup>1</sup> The average of four native rangelands reference areas were used as the baseline for evaluating success of the reclamation criteria.											

# Evaluation of the reclamation efforts of the disturbance on Corehole Pads IRI-3, MW-1, PW-1, and PW-2:

- There are 17 desirable plant species established on the site (7 perennial grasses, 6 desirable forbs, and 4 shrubs) meeting the requirement of at least five plant species.
- Russian wildrye (*Psathyrostachys juncea*) was the desired species with the greatest relative cover at 16.7 percent meeting the requirement that no one species can exceed 70 percent relative cover.
- The foliar cover of desirable species on the site was 85 percent of that on the native rangeland reference areas meeting the 80 percent similarity criteria.
- The amount of unprotected bare ground on this site was 96 percent of that on the native rangeland reference meeting the required 80 percent similarity.
- The density of forbs and shrubs on the site in comparison with the native rangeland reference areas was 6 percent and 38 percent, respectively. Neither desirable forbs nor shrub densities have met the requirement of 80 percent similarity.

The plant community does meet the criteria of species diversity, desired foliar cover, and bare ground, but does not meet the criteria for desirable forb density nor shrub density for successful reclamation of the disturbance at the site. This site does not meet all the criteria for successful reclamation of the disturbance at the site.

### **Corehole Pad T**

Vegetation sampling data was collected on October 16, 2023. Three 25 meter transects were randomly placed on the pad with 50 sample points on each transect for cover data. Ten one-meter square density quadrants were placed along each transect. Data collected from this site includes vegetative foliar and basal cover, species composition, forb and shrub densities and ground cover all summarized by plant group. In addition, ground cover data was collected for dead vegetative litter, bare ground, and surface rock.

The value for foliar cover, basal cover, species composition and bare ground were collected from three 25 meter transects for a total of 150 sample points. Values for forb and shrub densities were collected from 30 one-meter square quadrants. The 2023 data in Table 11 is summarized from data presented in Appendix Table F1. Each plant species encountered at this site is listed in Table F1. Table F1. Table 11 summarizes the data collected in 2023 in comparison to the data that was collected in 2022.

Vegetatio				ned Explo ition, Spe			round Co	ver		
			Line-Poi	nt Canop	y Interco	ept Data	1		Density	7 Data <sup>2</sup>
		······································								Shrub 7 (#/m²)
Plant Group	Plant Group         2022         2023         2023         2023         2023         2023         2023         2023         2023         2023         2023         2023         2023									2023
Perennial Grasses	7	9	11.4	12.8	4.0	2.0	15.25	21.84	n/a	n/a
Invasive Non-Native Grasses	1	1	6.7	20.0	0.0	0	12.71	33.64	n/a	n/a
Desirable Forbs	9	6	3.3	6.0	0.0	0.7	5.08	9.12	1.93	1.47
Invasive and Non-Native Forbs	1	3	34.0	9.4	0.0	0	52.54	18.18	n/a	n/a
Shrubs	5	5	11.3	12.7	0.0	0.7	14.42	17.22	1.49	1.33
Vegetation Totals         23         24         66.7         60.9         4.0         3.4         100.0         100.0								3.42	2.81	
Line-Point Intercept Soil Surface Cover Data <sup>3</sup>										
	Herbaceous									

Percent	Bare G	round	Biotic	Crust		aceous tter	Wood	y Litter	D	uff	Ro	ock
Cover by	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Туре	26.0	28.7	0.0	0.0	19.3	45.3	8.0	4.7	0.0	0.0	0.0	0.0
1 Course of Jata for			- 1 4	- + +1- 5	01		- 11 4 4 - 4	C	A	E-line -	1	

<sup>1</sup> Sum of data from 3 randomly placed transects with 50 sample points collected from each transect. Foliar cover based upon 1<sup>st</sup> plant species encountered in the canopy at each sample point. Species composition based upon total of all plant species encountered at each sample point.

<sup>2</sup> Sum of density data collected from ten 1-meter square quadrants along each transect. Only desirable forb and shrub densities were recorded based upon reclamation criteria.

<sup>3</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of ground cover from the top layer thru the lower layers to the soil surface. Values for bare ground have no vegetative, litter or rock cover above the soil surface.

The data collected from this site in 2023 showed a 17 percent increase in foliar cover for desirable species above values measured in 2022. The foliar cover of perennial grasses increased 11 percent, shrub cover increased 11 percent, and foliar cover of desirable forbs increased 45 percent above collected in 2022. In comparison with values measured in 2023, the foliar cover of desirable species on this site was 50 percent of that on the reference areas.

There were significant increases in the cover for non-native species in 2023. Forty-eight (48) percent of the cover measured on this site came from non-native and invasive species. The cover of cheatgrass nearly tripled its value measured in 2022. It accounted for 33 percent of the total foliar cover measured on this site. The cover of non-native forb species declined 72 percent in 2023 but still accounted for 15 percent of the cover measured on this site. In comparison with reference areas, the cover of non-native grasses was 5 times greater, and the cover of non-native forb species was 6 times greater than the values measured on the reference areas.

In 2023, the densities of desirable forb species declined 24 percent and the densities of shrubs declined 11 percent of the values measured in 2022. In comparison with reference areas,

desirable forb species were 40 percent of that on the reference areas and shrub densities were 78 percent of that on the reference areas.

There was a 9 percent increase in the amount of bare ground measured in 2023. However, the canopy gaps between perennial species declined 12 percent in 2023. The amount of bare ground on this site was 20 percent above that measured on the reference areas. The amount of herbaceous litter on this site was 6 percent greater than that on the reference areas. The canopy gaps between perennial species were 38 percent larger on this site than on the reference areas.

There is poor distribution across the site of the perennial species used in the seed mix. Most of the perennial species on the site are a few native grasses and several native forbs and shrubs that have pioneered the site from adjacent stands. The invasive and non-native species on this site accounted for 52 percent of the total species composition.

Table 12 is a comparison of the data collected for exploration corehole pad T with that from the rolling loam rangeland reference areas. Only the data required to access the success of achieving successful reclamation is used in Table 12.

Table 12 – Compar	rison of Reclamation	on Criteria Elen	nents with Nati	ve Rangeland Ref	erence Areas
Site	# desired plant species	% desired foliar cover	% bare ground	shrub density (#/m <sup>2</sup> )	forb density (#/m <sup>2</sup> )
Corehole Pad T	20 species	31.5	28.7	1.34	1.47
Reference Area <sup>1</sup>	26 species	63.0	23.0	1.70	3.65
<sup>1</sup> The average of four na reclamation criteria.	tive rangelands refe	erence areas wer	e used as the ba	use for evaluating si	uccess of the

### Evaluation of the reclamation efforts of the disturbance on Corehole Pad T:

- There are 20 desirable plant species observed on the site (9 perennial grasses, 6 desirable forbs, and 5 shrubs) meeting the requirement of at least five plant species.
- Yellow rabbitbrush (*Chrysothamnus viscidiflorus*) was the desired species with the greatest relative cover at 6.7 percent meeting the requirement that no one species can exceed 70 percent relative cover.
- The foliar cover of desirable species on the site was 50 percent of that on the native rangeland reference areas not meeting the requirement of 80 percent similarity.
- The amount of unprotected bare ground on the site was 20 greater that on the native rangeland reference areas which equates to 80 percent similarity, meeting the required 80 percent similarity.
- The density of forbs and shrubs on the site in comparison with the native rangeland reference areas was 40 percent and 78 percent, respectively. The criteria only require either forb density or shrub density meet the requirement of 80 percent similarity. Neither desirable forbs nor shrub densities have met the requirement of 80 percent similarity.

The plant community only meets the criteria for species diversity and bare ground. The criteria for the desired foliar cover, desirable forb density and density of shrubs have not been met.

However, shrub density is near the required criteria. This site does not meet all the criteria for successful reclamation of the disturbance at the site.

### **Corehole Pad U**

Vegetation sampling data was collected on October 16, 2023. Three 25 meter transects were randomly placed on the pad with 50 sample points on each transect for cover data. Ten one-meter square density quadrants were placed along each transect. Data collected from this site includes vegetative foliar and basal cover, species composition, forb and shrub densities and ground cover all summarized by plant group. In addition, ground cover data was collected for dead vegetative litter, bare ground, and surface rock.

The value for foliar cover, basal cover, species composition and bare ground were collected from three 25 meter transects for a total of 150 sample points. Values for forb and shrub densities were collected from 30 one-meter square quadrants. The 2023 data in Table 13 is summarized from data presented in Appendix Table G1. Each plant species encountered at this site is listed in Table G1. Table 13 summarizes the data collected in 2023 in comparison to the data that was collected in 2022.

	Veg	etatio	n Cover			Reclaimed ition, Spe		sity & Gr	ound Co	ver		
	veg	ctatio		species		int Canoj				VCI	Density	Data <sup>2</sup>
				Number of % Foliar Species Cover			% Basal Cover		cies osition	Forb/Shrub Density (#/m <sup>2</sup> )		
Plant C	Plant Group			2023	2022	2023	2022	2023	2022	2023	2022	2023
Perennial Grasse	s		4	5	12.7	15.4	0.7	2.7	23.16	26.00	n/a	n/a
Invasive Non-Na	tive Grass	es	1	1	6.7	22.0	0.0	0.0	13.68	34.00	n/a	n/a
Desirable Forbs	esirable Forbs			3	0.7	1.3	0.6	1.3	1.05	3.00	0.5	0.37
Invasive and Nor	n-Native F	orbs	1	3	28.0	6.0	0.0	0.0	47.37	14.00	n/a	n/a
Shrubs			5	6	8.7	14.7	0.7	0.7	14.74	23.00	0.9	0.88
Vegetation Tota	ls		14	18	56.8	59.4	2.0	4.7	100.0	100.0	1.40	1.25
			Line	-Point I	ntercept	Soil Surf	ace Cove	r Data <sup>3</sup>				
Percent	Bare G	round	Bio	tic Crus		rbaceous Litter		dy Litter	· ]	Duff	R	ock
Cover by	2022	2023	3 2022	2 202	3 202	2 2023	2022	2023	2022	2023	2022	2023
Туре	33.3	26.	7 0.	0 (	0.0 26.	.7 54.	0 5.3	3 4.0	0 0.0	0.0	0.7	0.0
	<sup>1</sup> Sum of data from 3 randomly placed transects with 50 sample points collected from each transect. Foliar cover based upon 1 <sup>st</sup> plant species encountered in the canopy at each sample point. Species composition based upon total of all plant species											

encountered at each sample point. <sup>2</sup> Sum of density data collected from ten 1-meter square quadrants along each transect. Only desirable forb and shrub densities were recorded based upon reclamation criteria.

<sup>3</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of ground cover from the top layer thru the lower layers to the soil surface. Values for bare ground have no vegetative, litter or rock cover above the soil surface.

The data collected from this site in 2023 showed a 30 percent increase in foliar cover for desirable species above values measured in 2022. The foliar cover of perennial grasses increased 18 percent, shrub cover increased 41 percent, and foliar cover of desirable forbs increased 46 percent above collected in 2022. In comparison with values measured in 2023, the foliar cover of desirable species on this site was 50 percent of that on the reference areas.

There were significant increases in the cover for non-native species in 2023. Forty-seven (47) percent of the cover measured on this site came from non-native and invasive species. The cover of cheatgrass increased 328 percent above its value measured in 2022. It accounted for 37 percent of the total foliar cover measured on this site. The cover of non-native forb species declined 79 percent in 2023 but still accounted for 10 percent of the cover measured on this site. In comparison with reference areas, the cover of non-native grasses was over 5 times greater, and the cover of non-native forb species was 3 times greater than the values measured on the reference areas.

In 2023, the densities of desirable forb species declined 26 percent and the densities of shrubs declined 2 percent of the values measured in 2022. In comparison with reference areas, desirable forb species were 10 percent of that on the reference areas and shrub densities were 52 percent of that on the reference areas.

There was a 20 percent decline in the amount of bare ground measured in 2023. The canopy gaps between perennial species declined 7 percent in 2023. The amount of bare ground on this site was 14 percent above that measured on the reference areas. The amount of herbaceous litter on this site was 11 percent greater than that on the reference areas. The canopy gaps between perennial species were 41 percent larger on this site than on the reference areas.

There is poor distribution across the site of the perennial species used in the seed mix. Most of the perennial species on the site are a few native grasses and several native shrubs that have pioneered the site from adjacent stands. The invasive and non-native species on this site accounted for 48 percent of the total species composition.

Table 14 is a comparison of the data collected for corehole pad U with that from the rolling loam rangeland reference area. Only the data required to access the success of achieving successful reclamation is used in Table 14.

Table 14 – Compar	rison of Reclamati	on Criteria Elen	nents with Nati	ve Rangeland Ref	erence Areas
Site	# desired plant species	% desired foliar cover	% bare ground	shrub density (#/m <sup>2</sup> )	forb density (#/m <sup>2</sup> )
Corehole Pad U	12 species	31.4	26.7	0.88	0.37
Reference Area <sup>1</sup>	26 species	63.0	23.0	1.70	3.65
<sup>1</sup> The average of four na reclamation criteria.	tive rangelands refe	erence areas wer	e used as the ba	seline for evaluatin	g success of the

### **Evaluation of the reclamation efforts of the disturbance on Corehole Pad U:**

- There are 12 desirable plant species established on the site (5 perennial grasses, 3 desirable forbs, and 6 shrubs) meeting the requirement of at least five plant species.
- Western wheatgrass (*Pascopyrum smithii*) was the desired species with the greatest relative cover at 8.7 percent meeting the requirement that no one species can exceed 70 percent relative cover.
- The foliar cover of desirable species on the site was 50 percent of that on the native rangeland reference areas not meeting the requirement of 80 percent similarity.

- The amount of unprotected bare ground on the site was 14 percent greater than on the native rangeland reference areas which equates to 86 percent similarity, meeting the required 80 percent similarity.
- The density of forbs and shrubs on the site in comparison with the native rangeland reference areas was 10 percent and 52 percent, respectively. Neither desirable forbs nor shrub densities have met the requirement of 80 percent similarity.

The plant community only meets the criteria for species diversity and bare ground. The criteria for desired foliar cover, desirable forb density and shrub density have not been met. This site does not meet all the criteria for successful reclamation of the disturbance at the site.

**Location Maps** 



#### NATURAL SODA 2023 VEGETATION MONITORING OF RECLAIMED SITES RIO BLANCO COUNTY, COLORADO



#### NATURAL SODA 2023 VEGETATION MONITORING OF RECLAIMED SITES RIO BLANCO COUNTY, COLORADO



### NATURAL SODA 2023 VEGETATION MONITORING OF RECLAIMED SITES

		n Sampling Data Nativ Colling Loam Native Rangeland	0		chee mees	
		Species Composition, Species I			•	
	Plant Species Observed within S	tudy Area	Line-Point	t Canopy In	tercept Data <sup>1</sup>	Density Data <sup>2</sup>
Species Symbol	Scientific Name	Common Name	% Foliar Cover	% Basal Cover	Species Composition	
ACHY	Achnatherum hymenoides	Indian ricegrass	4.00	2.00	5.66	
ELELE	Elymus elymoides ssp. elymoides	bottlebrush squirreltail	0.50	0.00	0.63	
HECO26	Hesperostipa comata	needle & thread needlegrass	8.50	2.00	13.21	
KOMA	Koeleria macrantha	prairie junegrass	8.00	2.00	13.21	
PASM	Pascopyrum smithii	western wheatgrass	18.50	1.00	24.53	
POSE	Poa secunda	Sandberg bluegrass	0.50	0.00	0.63	
PSSPI	Pseudoroegneria spicata ssp. inermis	beardless bluebunch wheatgrass	2.00	1.00	2.52	Desirable Forb/Shrub
		Perennial Grass Totals	42.00	8.00	60.38	Density (#/m <sup>2</sup> )
ANRO2	Antennaria rosea	rosey pussytoes	0.50	0.00	0.63	0.03
ARBI2	Artemisia biennis	biennial wormwood	0.00	0.00	0.00	0.03
ASCO12	Astragalus convallarius	lesser-rushy mlkvetch	1.50	0.00	3.14	0.33
CRFL6	Cryptantha flavoculata	roughseed cryptanth	0.00	0.00	0.00	0.15
EREA	Erigeron eatonii	Eaton's fleabane	0.00	0.00	0.00	0.50
HEBO	Hedysarum boreale	Utah sweetvetch	0.00	0.00	0.63	0.13
LEER	Leucelene ericoides	heath aster	0.00	0.00	0.00	0.05
LUAR3	Lupinus argenteus	silvery lupine	2.00	0.00	3.14	0.18
MAGR2	Machaeranthera grindelioides	rayless tansyaster	1.00	0.00	1.89	0.28
OPPO	Opuntia polyacantha	plains pricklypear cactus	0.00	0.00	0.00	0.08
РННО	Phlox hoodii	Hood's phlox	1.00	0.00	1.26	1.05
PHLO	Phlox longifolia	longleaf phlox	0.00	0.00	0.00	0.03
SPCO	Sphaeralcea coccinea	scarlet globemallow	1.00	0.00	1.89	0.85
		Desirable Forb Totals	7.00	0.00	12.58	3.65
ARTRW	Artemisia tridentata var. wyomingensis	Wyoming big sagebrush	11.00	0.00	15.09	1.15
CHVI8	Chrysothamnus viscidiflorus	yellow rabbitbrush	1.50	0.00	1.89	0.15
GUSA2	Gutierrezia sarothrae	broom snakeweed	1.00	0.00	1.26	0.30
JUOS	Juniperus osteosperma	Utah juniper	0.50	0.00	0.63	0.05
KRLA2	Krascheninnikovia lanata	winterfat	0.00	0.00	0.00	0.03
PUTR2	Purshia tridentata	antelope bittrebrush	0.00	0.00	0.00	0.03
		Shrub Totals	14.00	0.00	18.87	1.70
BRTE	Bromus tectorum	cheatgrass	4.00	0.00	6.29	
LEDE	Lepidium densiflorum	common pepperweed	1.00	0.00	1.26	
SATR12	Salsola tragus	Russian thistle	0.50	0.00	0.63	
	Totals for Inva	asive and Non-Native Species	5.50	0.00	8.18	
		Vegetation Totals	68.50	8.00	100.00	5.35
	ta from 4 randomly placed transects with 5 liar cover based upon 1 <sup>st</sup> plant species enco			Soil	Surface Cover	
	ies composition based upon 1 <sup>-4</sup> plant species enco				<b>Bare Ground</b>	23.0
<sup>2</sup> Sum of de	ensity data collected from 10 one-square mo	eter quadrants along each transe			<b>Biotic Crust</b>	0.0
	rb and shrub densities were recorded based			Her	baceous Litter	48.0
	ies not encountered in sampling data but w es are not cumulative with vegetation totals				Woody Litter	1.0
	p layer thru the lower layers to the soil surf				Duff	0.0
					Rock	0.0

### **Appendix A – Vegetation Sampling Data Native Rangeland Reference Areas**

			ole A2 - Ca Loam Nat	~ ~ .		•	·ea			
Canopy Gaps > 20 centimeters	Total of 20		Gaps 21-50 cm		Gaps 51-100 cm		Gaps 101-200 cm		Gaps >200 cm	
centimeters	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Transect 1	881	277	488	193	393	384	0	0	0	0
Transect 2	1153	865	297	366	593	499	263	0	0	0
Transect 3	939	914	512	483	173	431	254	0	0	0
Transect 4	835	1234	465	276	265	678	105	280	0	0
Total Gaps (cm) 3808 3290 1762 1318 1424 1992 622 280 0 0										
% Line in Gaps         38.08         32.90         17.62         13.18         14.24         19.92         6.22         2.80         0.00         0.00										
Line length for each transect was 25 meters.										

	Table A3 - Transect Coordinate Locations           Native Rangeland Reference Areas (Datum: UTM Zone 12, WGS 84)											
	Azimuth from	Transect Starting	Point	Transect Ending	Point							
Site	starting point (true N)	Northing (mN)	Easting (mE)	Northing (mN)	Easting (mE)	Length						
Transect 1	309 °	4423129.528	726334.5835	4423144.65	726312.4928	25 meters						
Transect 2	127 °	4423632.509	725412.1264	4423621.76	725435.624	25 meters						
Transect 3	166 °	4424204.336	725211.5862	4424184.072	725221.422	25 meters						
Transect 4	289 °	4426270.532	723610.85	4426277.177	723587.3982	25 meters						

### Transect Photos -- Native Rangeland Reference Areas



Figure A1 - Rolling Loam Rangeland Reference Area Transect #1



Figure A2 - Rolling Loam Rangeland Reference Area Transect #2



Figure A3 - Rolling Loam Rangeland Reference Area Transect #3



Figure A4 - Rolling Loam Rangeland Reference Area Transect #4

	Table R1 - Vegetation	Cover, Species Compositi	ion Species	Density & (	Ground Cover		
	Table DI - Vegetation	Reclaimed Pad 9		Density & C	Stound Cover		
-	Plant Species Observed withi			t Canopy I	ntercept Data <sup>1</sup>	Density Data <sup>2</sup>	
Species			% Foliar	% Basal	Species	~	
Symbol	Scientific Name	Common Name	Cover	Cover	Composition		
AGCR	Agropyron cristatum	crested wheatgrass	2.0	0.0	3.06		
	Elymus lanceolatus ssp						
ELLAL	lanceolatus	thickspike wheatgrass	1.3	0.7	2.04		
ELTR7	Elymus trachycaulus	slender wheatgrass	13.3	3.3	21.43		
LECI4	Leymus cinereus	basin wildrye	2.0	0.0	3.06		
NAVI4	Nassella viridula	green needlegrass	1.3	0.0	2.04		
PASM	Pascopyrum smithii	western wheatgrass	5.3	0.0	8.16		
PSJU3	Psathyrostachys juncea	Russian wildrye	18.7	2.7	30.61		
THIN6	Thinopyrum intermedium	pubescent wheatgrass	1.3	0.0	2.04	Forb/Shrub	
	· · · ·	Perennial Grass Totals	45.3	6.7	72.45	Density (#/m <sup>2</sup> )	
LILE3	Linum lewisii	Lewis flax	0.0	0.0	0.00	0.07	
MESA	Medicago sativa	alfalfa	2.0	0.0	3.06	0.23	
SPCO	Sphaeralcea coccinea	scarlet globemallow	0.7	0.0	1.02	0.20	
		Desirable Forb Totals	2.7	0.0	4.08	0.50	
	Artemisia tridentata var.						
ARTRW	wyomingensis	Wyoming big sagebrush	1.3	0.0	2.04	0.13	
ATCA2 <sup>3</sup>	Atriplex canescens	four-wing saltbush	0.0	0.0	0.00	0.00	
CHVI8	Chrysothamnus viscidiflorus	yellow rabbitbrush	4.7	0.0	7.14	0.20	
GUSA2	Gutierrezia sarothrae	broom Snakeweed	1.3	0.0	2.04	0.33	
		Shrub Totals	7.3	0.0	11.22	0.67	
BRTE	Bromus tectorum	cheatgrass	4.7	0.0	9.18		
DESO2	Descurainia sophia	yellow mustard	1.3	0.0	2.04		
SATR12	Salsola tragus	Russian thistle	0.7	0.0	1.02		
	<b>Totals for Invasive</b>	and Non-Native Species	6.67	0.00	12.24		
		Vegetation Totals	62.0	6.7	100.0	1.17	
from each t	<sup>1</sup> Sum of data from 3 randomly placed 25 meter transects with 50 sample points collec from each transect. Foliar cover based upon 1 <sup>st</sup> plant species encountered in the canop				Ground Cover by	<sup>v</sup> Cover Type <sup>4</sup>	
	ple point. Species composition base	es		Bare Grou	nd 23.3		
	d at each sample point.	-1. 4		1st 0.0			
	ensity data collected from 10 one-sq ble forb and shrub densities were re						
	ties not encountered in sampling dat						
	thes not encountered in sampling dat			woody Litter			

### Appendix B – Vegetation Sampling Data Reclaimed Well Pad 93-2M

	Table B2 - Canopy Gap Intercept Data         Reclaimed Pad 93-2M											
C 20	Total of Gans Gans 21-50 Gans 51-100 Gans 101-200 Gans >200											
• • •	Canopy Gaps > 20 centimeters > 20 cm			m	ci	m	ci	m	cm			
centimeters	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023		
Transect 1	1252	968	564	497	484	367	0	104	204	0		
Transect 2	1341	858	123	156	420	600	376	102	422	0		
Transect 3	730	699	576	545	154	154	0	0	0	0		
Total Gaps (cm)	otal Gaps (cm) 3323 2525 1263 1198 1058 1121 376 206 626 0											
% Line in Gaps												
Line length for each	transect v	vas 25 m	eters for .	site total	length of	75 meter	s					

<sup>4</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of ground cover from the top layer thru the lower layers to the soil surface. Values for bare

ground have no vegetative, litter or rock cover above the soil surface.

Duff

Rock

0.0

0.0

	Table B3 - Transect Coordinate Locations           Reclaimed Pad 93-2M (Datum: UTM Zone 12, WGS 84)										
	Azimuth from	Transect Sta	Transect Starting Point Transect Ending Point								
Site	starting point (true N)	Northing (mN)	Easting (mE)	Northing (mN)	Easting (mE)	Length					
Transect 1	171 °	4423685.915	725373.3398	4423663.186	725382.4797	25 meters					
Transect 2	261 °	4423688.38	725374.0367	4423691.455	725350.253	25 meters					
Transect 3	329 °	4423692.974	725371.5915	4423717.406	725363.6842	25 meters					

Transect Photos -- Reclaimed Pad 93-2M



Figure B1 Transect 1 Reclaimed Pad 93-2M



Figure B2 Transect 2 Reclaimed Pad 93-2M



Figure B3 Transect 3 Reclaimed Pad 93-2M

	Plant Species Observed with	in Study Area	Line-Poin	t Canopy I	ntercept Data <sup>1</sup>	<b>Density Dat</b>
Species			% Foliar	% Basal	Species	
Symbol	Scientific Name	Common Name	Cover	Cover	Composition	
ACHY	Achnatherum hymenoides	Indian ricegrass	3.3	1.3	4.50	
AGCR	Agropyron cristatum	crested wheatgrass	0.7	0.7	0.90	
	Elymus lanceolatus ssp					
ELLAL	lanceolatus	thickspike wheatgrass	4.0	0.7	5.41	
ELTR7	Elymus trachycaulus	slender wheatgrass	20.8	4.7	28.83	
		needle & thread				
HECO26	Hesperostipa comata	needlegrass	0.7	0.0	0.90	
LECI4	Leymus cinereus	basin wildrye	0.0	0.0	0.00	
PASM	Pascopyrum smithii	western wheatgrass	3.3	0.0	4.50	
PSJU3	Psathyrostachys juncea	Russian wildrye	9.3	2.7	12.61	
	Pseudoroegneria spicata ssp.	beardless bluebunch				
PSSPI	inermis	wheatgrass	4.0	0.0	5.42	
THIN6	Thinopyrum intermedium	intermedate wheatgrass	0.7	0.0	0.90	Forb/Shru
		Perennial Grass Totals	46.7	10.0	63.97	Density (#/n
ASCI4 <sup>3</sup>	Astragalus cicer	cicer milkvetch	0.0	0.0	0.00	0
HEBO <sup>3</sup>	Hedysarum boreale	Utah sweetvetch	0.0	0.0	0.00	0
LILE3 <sup>3</sup>	Linum lewisii	Lewis flax	0.0	0.0	0.00	0
MACA2	Machaeranthera canescens	hoary tansyaster	0.0	0.0	0.90	0
MESA	Medicago sativa	alfalfa	0.0	0.0	0.00	0
TRDU	Tragopogon dubius	western salsify	0.7	0.0	0.90	0
		Desirable Forb Totals	0.7	0.0	1.80	0
	Artemisia tridentata var.					
ARTRW	wyomingensis	Wyoming big sagebrush	4.0	0.0	5.41	0
ATCA2	Atriplex canescens	four-wing saltbush	0.0	0.0	0.00	0
CHVI8	Chrysothamnus viscidiflorus	yellow rabbitbrush	1.3	0.0	1.80	0
GUSA2	Gutierrezia sarothrae	broom Snakeweed	0.7	0.0	0.90	0
KRLA2 <sup>3</sup>	Krascheninnikovia lanata	winterfat	0.0	0.0	0.00	0
		Shrub Totals	6.0	0.0	8.11	0.
BRTE	Bromus tectorum	cheatgrass	8.0	0.0	12.61	
LEDE	Lepidium densiflorum	common pepperweed	0.7	0.0	1.80	
SATR12	Salsola tragus	Russian thistle	8.0	0.0	11.71	
		e and Non-Native Species	16.7	0.0	26.13	
		Vegetation Totals	70.0	10.0	100.0	0
from each t	Sum of data from 3 randomly placed 25 meter transects with 50 sample point rom each transect. Foliar cover based upon 1 <sup>st</sup> plant species encountered in the t each sample point. Species composition based upon total of all plant species				Ground Cover by	Cover Ty
at cach sail	ipie point. Species composition bas	cu upon total of an plant spech	65		Bare Grou	nd

### Appendix C – Vegetation Sampling Data Reclaimed Pad BG-8

encountered at each sample point. <sup>2</sup> Sum of density data collected from 10 one-square meter quadrants along each transect.

Only desirable forb and shrub densities were recorded based upon reclamation criteria. <sup>3</sup> Plant species not encountered in sampling data but were present within the study area.

<sup>4</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of ground cover from the top layer thru the lower layers to the soil surface. Values for bare ground have no vegetative, litter or rock cover above the soil surface.

Table C2 - Canopy Gap Intercept Data         Reclaimed Pad BS-8											
Canopy Gaps > 20	Total o > 20	-	Gaps ci		Gaps f		Gaps 1 ci		-	Gaps >200 cm	
centimeters	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	
Transect 1	836	762	258	405	0	357	122	0	456	0	
Transect 2	1555	896	110	147	334	287	628	0	483	462	
Transect 3	1080	830	385	396	128	257	567	177	0	0	
Total Gaps (cm)	Total Gaps (cm) 3471 2488 753 948 462 901 1317 177 939 462						462				
% Line in Gaps	46.28	33.17	10.04	12.64	6.16	12.01	17.56	2.36	12.52	6.16	

Bare Ground	18.0
Biotic Crust	0.0
Herbaceous Litter	55.3
Woody Litter	1.3
Duff	0.0
Rock	1.3

Line length for each transect was 25 meters for site total length of 75 meters

	Table C3 - Transect Coordinate LocationsReclaimed Pad BS-8 (Datum: UTM Zone 12, WGS 84)									
	Azimuth fromTransect Starting PointTransect Ending Point									
Site	starting point (true N)	Northing (mN)	Easting (mE)	Northing (mN)	Easting (mE)	Length				
Transect 1	132 °	4423091.376	726318.1803	4423079.857	726338.1113	25 meters				
Transect 2	229 °	4423091.744	726315.6032	4423074.221	726297.9886	25 meters				
Transect 3	290 °	4423100.98	726316.0988	4423105.048	726292.1976	25 meters				

### Transect Photos – Reclaimed Pad BG-8



Figure C1 Transect 1 Reclaimed Pad BG-8



Figure C2 Transect 2 Reclaimed Pad BG-8



Figure C3 Transect 3 Reclaimed Pad BG-8

	Table D1 - Vegetatio	on Cover, Species Composition Reclaimed Exploration		sity & Grou	ind Cover	
	Plant Species Observed with			nt Canopy I	ntercept Data <sup>1</sup>	Density Data <sup>2</sup>
Species Symbol	Scientific Name	Common Name	% Foliar Cover	% Basal Cover	Species Composition	
ACHY	Achnatherum hymenoides	Indian ricegrass	3.3	0.7	5.74	
	Elymus lanceolatus ssp					
ELLAL	lanceolatus	thickspike wheatgrass	4.1	0.7	4.92	
ELTR7	Elymus trachycaulus	slender wheatgrass	15.3	2.0	21.31	
HECO26	Hesperostipa comata	needle & thread needlegrass	11.3	3.3	16.38	
LECI4	Leymus cinereus	basin wildrye	1.3	0.0	1.64	
NAVI4	Nassella viridula	green needlegrass	3.3	0.7	4.92	
PASM	Pascopyrum smithii	western wheatgrass	4.7	0.0	7.38	
KOMA	Koeleria macrantha	prairie junegrass	2.0	0.0	2.46	
	Pseudoroegneria spicata ssp.	beardless bluebunch				Desirable
PSSPI	inermis	wheatgrass	2.0	0.7	2.46	Forb/Shrub
10011	mernus	Perennial Grass Totals	47.3	8.1	67.21	Density (#/m <sup>2</sup> )
ASCI4	Astragalus cicer	cicer milkvetch	0.0	0.0	0.00	0.07
ASCO12	Astragalus convallarius	lesser-rushy mlkvetch	0.0	0.0	0.82	0.07
CRAC	Crepis acuminata	longleaf hawksbeard	0.0	0.0	0.02	0.10
CRFL6	Cryptantha flavoculata	roughseed cryptanth	0.0	0.0	0.00	0.13
EREA <sup>3</sup>	Erigeron eatonii	Eaton fleabane	0.0	0.0	0.00	0.00
HEBO <sup>3</sup>	Hedysarum boreale	Utah sweetvetch	0.0	0.0	0.00	0.00
LEER	Leucelene ericoides	heath aster	0.0	0.0	0.00	0.07
LILE3	Linum lewisii	Lewis flax	0.0	0.0	0.00	0.30
MACA2	Machaeranthera canescens	hoary tansyaster	0.0	0.0	0.00	0.13
MAGR2	Machaeranthera grindelioides	rayless tansyaster	0.7	0.0	0.82	0.30
MESA	Medicago sativa	alfalfa	3.3	0.0	5.73	0.77
OPPO	Opuntia polyacantha	plains pricklypear cactus	0.0	0.0	0.00	0.03
PEST2 <sup>3</sup>	Penstemon strictus	Rocky Mountain penstemon	0.0	0.0	0.00	1.00
PHHO <sup>3</sup>	Phlox hoodii	Hood's phlox	0.0	0.0	0.00	0.00
SPCO	Sphaeralcea coccinea	scarlet globemallow	1.3	0.7	3.28	0.53
		<b>Desirable Forb Totals</b>	6.0	0.7	10.65	3.50
	Artemisia tridentata var.					0.10
ARTRW	wyomingensis	Wyoming big sagebrush	0.7	0.7	0.82	
ATCA2	Atriplex canescens	four-wing saltbush	2.0	0.0	2.46	0.10
CHVI8	Chrysothamnus viscidiflorus	yellow rabbitbrush	1.3	0.0	2.46	0.17
GUSA2	Gutierrezia sarothrae	broom Snakeweed	0.0	0.0	0.00	0.13
KRLA2	Krascheninnikovia lanata	winterfat	2.0	0.0	2.46	0.13
PUTR2	Purshia tridentata	antelope bittrebrush	0.0	0.0	0.00	0.04
	-	Shrub Totals	6.0	0.7	8.20	0.67
BRTE	Bromus tectorum	cheatgrass	3.3	0.0	7.38	
LEDE	Lepidium densiflorum	common pepperweed	0.7	0.0	0.82	
SATR12	Salsola tragus	Russian thistle	4.7	0.0	5.74	
	Totals for Inv	asive and Non-Native Species	8.7	0.0	13.94	
	i oturis for filly	Vegetation Totals	68.0	9.4	100.0	4.17
<sup>1</sup> Sum of da	ta from 3 randomly placed 25 met		<i>,</i> ,,	10010		
	ransect. Foliar cover based upon 18		e canopy at	Percent	Ground Cover by	y Cover Type <sup>3</sup>

### Appendix D – Vegetation Sampling Data Reclaimed Corehole Pad G

<sup>1</sup> Sum of data from 3 randomly placed 25 meter transects with 50 sample points collected from each transect. Foliar cover based upon 1<sup>st</sup> plant species encountered in the canopy at each sample point. Species composition based upon total of all plant species encountered at each sample point.

<sup>2</sup> Sum of density data collected from 10 one-square meter quadrants along each transect. Only desirable forb and shrub densities were recorded based upon reclamation criteria.
<sup>3</sup> Plant species not encountered in sampling data but were present within the study area.
<sup>4</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of ground cover from the top layer thru the lower layers to the soil surface. Values for bare ground have no vegetative, litter or rock cover above the soil surface.

Bare Ground16.7Biotic Crust0.0Herbaceous Litter58.7Woody Litter4.7Duff0.0Rock0.0

Table D2 - Canopy Gap Intercept DataReclaimed Exploration Pad G										
Canopy Gaps > 20 centimeters	Total o > 20	-	Gaps 21-50 Gaps 51-100 cm cm		Gaps 1 ci		Gaps >200 cm			
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Transect 1	873	894	378	490	495	260	0	144	0	0
Transect 2	1482	1141	137	394	223	615	639	132	483	0
Transect 3	1216	543	193	376	672	167	351	0	0	0
Total Gaps (cm)	3571	2578	708	1260	1390	1042	990	276	483	0
% Line in Gaps	47.61	34.37	9.44	16.80	18.53	13.89	13.20	3.68	6.44	0.00
Line length for each transect was 25 meters for site total length of 75 meters										

	Table D3 - Transect Coordinate Locations Reclaimed Exploration Pad G (Datum: UTM Zone 12, WGS 84)									
	Azimuth from	Transect Starting Fourt Transect Ending Fourt								
Site	starting point (true N)	Northing (mN)	Easting (mE)	Northing (mN)	Easting (mE)	Length				
Reclaimed E	xploration Pad C	j j								
Transect 1	009 °	4424260.363	725295.2862	4424283.552	725294.173	25 meters				
Transect 2	123 °	4424250.262	725295.5849	4424242.103	725316.5237	25 meters				
Transect 3	248 °	4424254.609	725292.2919	4424244.496	725269.6696	25 meters				



Figure D1 Transect 1 Reclaimed Corehole Pad G

Figure D2 Transect 2 Reclaimed Corehole Pad G

Figure D3 Transect 3 Reclaimed Corehole Pad G

		n Cover, Species Composition							
	Reclaimed Ex Plant Species Observed withi	xploration Corehole Pad IRI-3 n Study Area			-2 ntercept Data <sup>1</sup>	Density Data <sup>2</sup>			
Species Symbol	Scientific Name	Common Name	% Foliar Cover	% Basal Cover	Species Composition				
ACHY	Achnatherum hymenoides	Indian ricegrass	1.3	1.3	2.30				
AGCR	Agropyron cristatum	crested wheatgrass	7.3	0.7	12.64				
ELTR7	Elymus trachycaulus	slender wheatgrass	13.3	2.7	24.14				
HECO26 LECI4	Hesperostipa comata Leymus cinereus	needle & thread needlegrass basin wildrye	4.7	1.3 0.0	9.20 1.14				
PASM	Pascopyrum smithii	western wheatgrass	6.0	0.0	11.49				
PSJU3	Psathyrostachys juncea	Russian wildrye	16.7	4.0	28.74				
PSSPI <sup>3</sup>	Pseudoroegneria spicata ssp. inermis	beardless bluebunch wheatgrass	0.0	0.0	0.00	Desirable			
THIN6 <sup>3</sup>	Thinopyrum intermedium	pubescent wheatgrass	0.0	0.0	0.00	Forb/Shrub			
		Perennial Grass Totals	50.0	10.0	89.65	Density (#/m <sup>2</sup> )			
EREA	Erigeron eatonii	Eaton's fleabane	0.0	0.0	0.00	0.03			
LILE3	Linum lewisii	Lewis flax	0.0	0.0	0.00	0.10			
MACA2 <sup>3</sup>	Machaeranthera canescens	hoary tansyaster	0.0	0.0	0.00	0.00			
MAGR2 <sup>3</sup>	Machaeranthera grindelioides	rayless tansyaster	0.0	0.0	0.00	0.00			
MESA	Medicago sativa	alfalfa	0.0	0.0	0.00	0.10			
PHHO <sup>3</sup>	Phlox hoodii	Hood's phlox	0.0	0.0	0.00	0.00			
		Desirable Forb Totals	0.0	0.0	0.00	0.23			
ARTRW	Artemisia tridentata var. wyomingensis	Wyoming big sagebrush	0.7	0.0	1.15	0.20			
ATCA2	Atriplex canescens	four-wing saltbush	1.3	0.0	2.30	0.37			
CHVI8	Chrysothamnus viscidiflorus	yellow rabbitbrush	1.3	0.0	2.30	0.07			
GUSA2 <sup>3</sup>	Gutierrezia sarothrae	broom Snakeweed	0.0	0.0	0.00	0.00			
		Shrub Totals	3.3	0.0	5.75	0.64			
BRTE	Bromus tectorum	cheatgrass	2.0	0.0	3.45				
LEPE2	Lepidium perfoliatum	clasping pepperweed	0.7	0.0	1.15				
	Totals for Inva	sive and Non-Native Species	2.7	0.0	4.60				
		10.0	100.0	0.87					
	Vegetation Totals56.010.0100.00.87Sum of data from 3 randomly placed 25 meter transects with 50 sample points collected om each transect. Foliar cover based upon 1st plant species encountered in the canopy atPercent Ground Cover by Cover Type 4								

### Appendix E – Vegetation Sampling Data Reclaimed Corehole Pads IRI-3, MW1, PW1, PW2

each sample point. Species composition based upon total of all plant species encountered at each sample point. <sup>2</sup> Sum of density data collected from 10 one-square meter quadrants along each transect. Only desirable forb and shrub densities were recorded based upon reclamation criteria. <sup>3</sup> Plant species not encountered in sampling data but were present within the study area. <sup>4</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of ground cover from the top layer thru the lower layers to the soil surface. Values for bare

ground have no vegetative, litter or rock cover above the soil surface.

Bare Ground	24.0
Biotic Crust	0.0
Herbaceous Litter	58.0
Woody Litter	0.7
Duff	0.0
Rock	0.7

Table E2 - Canopy Gap Intercept DataReclaimed Exploration Corehole Pad IRI-3, MW-1, PW-1 and PW-2										
Canopy Gaps > 20	Total o > 20	-	Gaps ci		Gaps : ci		Gaps 1 ci		Gaps ci	
centimeters	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Transect 1	732	1079	322	479	173	343	237	257	0	0
Transect 2	1519	1330	290	474	506	707	246	149	477	0
Transect 3	1061	499	518	291	367	55	176	153	0	0
Total Gaps (cm)	3312	2908	1130	1244	1046	1105	659	559	477	0
% Line in Gaps	44.16	38.77	15.07	16.59	13.95	14.73	8.79	7.45	6.36	0.00
Line length for each	transect v	vas 25 m	eters for .	site total	length of	75 meter	rs			

Table E3	Table E3 - Transect Coordinate Locations Reclaimed Exploration Pad IRI-3, MW-1, PW-1 and PW-2         (Datum: UTM Zone 12, WGS 84)									
	Azimuth from Transect Starting Point Transect Ending Point									
Site	starting point (true N)	Northing (mN)	Easting (mE)	Northing (mN)	Easting (mE)	Length				
Transect 1	102 °	4424251.338	724300.1099	4424252.065	724324.8055	25 meters				
Transect 2	002 °	4424258.789	724300.3183	4424283.395	724298.3111	25 meters				
Transect 3	274 °	4424256.981	724291.7334	4424257.992	724265.7037	25 meters				

Transect Photos -- Reclaimed Corehole Pads IRI3, MW1, PW1, PW2



Figure E1 Transect 1 Reclaimed Pads IRI3, MW1, PW1, PW2

Figure E2 Transect 2 Reclaimed Pads IRI3, MW1, PW1, PW2



Figure E3 Transect 3 Reclaimed Pads IRI3, MW1, PW1, PW2

Appendix F –	Vegetation	Sampling ]	Data	Reclaimed	Corehole	Pad T
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	Table F1 - Vegetation	n Cover, Species Composition Reclaimed Exploration Co	rehole Pad	Γ		
	Plant Species Observed wi	thin Study Area	Line-Poi	nt Canopy I	ntercept Data <sup>1</sup>	Density Data <sup>2</sup>
Species Symbol	Scientific Name	Common Name	% Foliar Cover	% Basal Cover	Species Composition	
ACHY	Achnatherum hymenoides	Indian ricegrass	0.7	0.0	2.74	
ELLAL	Elymus lanceolatus ssp lanceolatus	thickspike wheatgrass	0.0	0.0	0.91	
ELTR7	Elymus trachycaulus	slender wheatgrass	3.3	1.3	5.45	
HECO26 <sup>3</sup>	Hesperostipa comata	needle & thread needlegrass	2.7	0.0	4.55	
LECI4	Leymus cinereus	basin wildrye	2.0	0.7	2.73	
NAVI4	Nassella viridula	green needlegrass	2.0	0.0	2.73	
PASM	Pascopyrum smithii	western wheatgrass	0.7	0.0	0.91	
PSJU3	Psathyrostachys juncea	Russian wildrye	0.7	0.0	0.91	
	Pseudoroegneria spicata	beardless bluebunch				Desirable
PSSPI	ssp. inermis			0.0	0.91	Forb/Shrub
		Perennial Grass Totals	12.8	2.0	21.84	Density (#/m <sup>2</sup> )
ARFR4 <sup>3</sup>	Artemisia frigida	fringed sage	0.0	0.0	0.00	0.00
ARLU	Artemisia ludoviciana	prairie sage	2.7	0.0	3.66	0.30
LILE3	Linum lewisii	Lewis flax	0.0	0.0	0.00	0.03
MACA2	Machaeranthera canescens	hoary tansyaster	1.3	0.0	2.73	0.47
MESA	Medicago sativa	alfalfa	2.0	0.7	2.73	0.67
SPCO <sup>3</sup>	Sphaeralcea coccinea	scarlet globernallow	0.0	0.0	0.00	0.00
		<b>Desirable Forb Totals</b>	6.0	0.7	9.12	1.47
ARTRW	Artemisia tridentata var. wvomingensis	Wyoming big sagebrush	3.3	0.0	4.5	0.67
ATCA2 <sup>3</sup>	Atriplex canescens	four-wing saltbush	0.0	0.0	0.0	0.00
CHVI8	Chrysothamnus viscidiflorus	yellow rabbitbrush	6.7	0.7	9.11	0.47
GUSA2	Gutierrezia sarothrae	broom Snakeweed	2.0	0.0	2.7	0.10
KRLA2	Krascheninnikovia lanata	winterfat	0.7	0.0	0.91	0.10
	• • • • • • • • • • • • • • • • • • • •	Shrub Totals	12.7	0.7	17.22	1.34
ALDE	Alyssum desertorum	desert madwort	2.7	0.0	6.36	
BRTE	Bromus tectorum	cheatgrass	20.0	0.0	33.64	
SATR12	Salsola tragus	Russian thistle	6.7	0.0	11.82	
51111112		vasive and Non-Native Species	29.4	0.0	51.82	
	10000010111	Vegetation Totals	60.9	3.4	100.0	2.81
		eter transects with 50 sample point 1 <sup>st</sup> plant species encountered in th	ts collected		Ground Cover by	
each sample	e point. Species composition base	ed upon total of all plant species en			Bare Gro	ound 28.7
at each sam			Biotic C			
	ensity data collected from 10 one					
	ble forb and shrub densities were			Herbaceous L Woody L		
	ies not encountered in sampling			v		
<sup>4</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of						
ground cover from the top layer thru the lower layers to the soil surface. Values for bare						
ground have	e no vegetative, litter or rock cov	er above the soil surface.				

Table F2 - Canopy Gap Intercept DataReclaimed Exploration Corehole Pad T										
Canopy Gaps > 20 centimeters	Total o > 20	of Gaps Gaps 21-50 ) cm cm		Gaps 51-100 cm		Gaps 101-200 cm		Gaps >200 cm		
centimeters	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Transect 1	2298	2056	0	21	386	153	509	707	1403	1175
Transect 2	1809	1459	228	286	447	607	1134	255	0	311
Transect 3	1775	1822	177	186	390	654	972	732	236	250
Total Gaps (cm)         5882         5337         405         493         1223         1414         2615         1694         1639         1736										
% Line in Gaps	78.43	71.16	5.40	6.57	16.31	18.85	34.87	22.59	21.85	23.15
Line length for each transect was 25 meters for site total length of 75 meters										

Table F3 - Transect Coordinate Locations Reclaimed Exploration Pad T(Datum: UTM Zone 12, WGS 84)									
	Azimuth from Transect Starting Point Transect Ending Point								
Site	starting point (true N)	Northing (mN) Easting (mE)		Northing (mN)	Easting (mE)	Length			
Transect 1	135 °	4426312.671	723664.847	4426298.139	723684.5119	25 meters			
Transect 2	191 °	4426310.893	723661.0517	4426290.09	723656.3615	25 meters			
Transect 3	230 °	4426310.153	723654.7463	4426299.332	723638.1346	25 meters			

### Transect Photos -- Reclaimed Corehole Pad T



Figure F1 Transect 1 Reclaimed Corehole Pad T

Figure F2 Transect 2 Reclaimed Corehole Pad T



Figure F3 Transect 3 Reclaimed Corehole Pad T

Table G1 - Vegetation Cover, Species Composition, Species Density & Ground Cover Reclaimed Exploration Corehole Pad U								
Plant Species Observed within Study Area				Line-Point Canopy Intercept Data <sup>1</sup>				
Species Symbol	Scientific Name	Common Name	% Foliar Cover	% Basal Cover	Species Composition			
ACHY	Achnatherum hymenoides	Indian ricegrass	2.0	1.3	3.00			
ELTR7	Elymus trachycaulus	slender wheatgrass	2.7	0.7	5.00			
HECO26	Hesperostipa comata	needle & thread needlegrass	1.3	0.7	2.00			
PASM	Pascopyrum smithii	western wheatgrass	8.7	0.0	15.00	Desirable		
PSJU3	Psathyrostachys juncea	Russian wildrye	0.7	0.0	1.00	Forb/Shrub		
Perennial Grass Totals				2.7	26.00	Density (#/m <sup>2</sup> )		
LEMO2 <sup>3</sup>	Lepidium montanum	mountain pepperwed	0.0	0.0	0.00	0.00		
MESA	Medicago sativa	alfalfa	1.3	1.3	3.00	0.33		
SPCO	Sphaeralcea coccinea	scarlet globernallow	0.0	0.0	0.00	0.04		
		Desirable Forb Totals	1.3	1.3	3.00	0.37		
ARTRT	Artemisia tridentata var. tridentata	basin big sagebrush	1.3	0.0	2.00	0.04		
ATCA2	Atriplex canescens	four-wing saltbush	0.0	0.0	0.0	0.10		
CHVI8	Chrysothamnus viscidiflorus	yellow rabbitbrush	8.0	0.7	12.00	0.30		
GUSA2	Gutierrezia sarothrae	broom Snakeweed	4.7	0.0	8.00	0.40		
PUTR2 <sup>3</sup>	Purshia tridentata	antelope bittrebrush	0.0	0.0	0.00	0.00		
SAVE4	Sarcobatus vermiculatus	greasewood Shrub Totals	0.7	0.0	1.00	0.04		
	14.7	0.7	23.00	0.88				
ALDE	Alyssum desertorum	desert madwort	2.0	0.0	4.00			
BRTE	Bromus tectorum	cheatgrass	22.0	0.0	34.00			
SATR12	Salsola tragus	Russian thistle	4.0	0.0	10.00			
	Totals for In	vasive and Non-Native Species	28.0	0.0	48.0			
		Vegetation Totals	59.4	4.7	100.0	1.25		

### Appendix G – Vegetation Sampling Data Reclaimed Corehole Pad U

<sup>1</sup> Sum of data from 3 randomly placed 25 meter transects with 50 sample points collected from each transect. Foliar cover based upon 1<sup>st</sup> plant species encountered in the canopy at each sample point. Species composition based upon total of all plant species encountered at each sample point.

Percent Ground Cover by Cover Type <sup>3</sup>

Bare Ground	26.7
Biotic Crust	0.0
Herbaceous Litter	54.0
Woody Litter	4.0
Duff	0.0
Rock	0.0

<sup>2</sup> Sum of density data collected from 10 one-square meter quadrants along each transect. Only desirable forb and shrub densities were recorded based upon reclamation criteria. <sup>3</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of ground cover from the top layer thru the lower layers to the soil surface. Values for bare ground have no vegetative, litter or rock cover above the soil surface.

Table G2 - Canopy Gap Intercept DataReclaimed Exploration Corehole Pad U											
Canopy Gaps > 20	Total of Gaps > 20 cm		Gaps 21-50 cm		Gaps 51-100 cm		Gaps 101-200 cm		Gaps >200 cm		
centimeters	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	
Transect 1	1768	1951	79	41	853	405	244	1120	592	385	
Transect 2	2370	1880	46	82	78	480	492	594	1754	724	
Transect 3	1909	1772	41	206	220	394	269	912	1379	260	
Total Gaps (cm)         6047         5603         166         329         1151         1279         1005         2626         3725         1369											
% Line in Gaps         80.63         74.71         2.21         4.39         15.35         17.05         13.40         35.01         49.67         18.25											
Line length for each transect was 25 meters for site total length of 75 meters											

Table G3 - Transect Coordinate Locations Reclaimed Exploration Pad U         (Datum: UTM Zone 12, WGS 84)									
	Azimuth from Transect Starting Point Transect Ending Point								
Site	starting point (true N)	Northing (mN) Easting (mE)		Northing (mN) Easting (mE)		Length			
Transect 1	358 °	4426860.967	723259.3946	4426887.815	723254.2471	25 meters			
Transect 2	052 °	4426860.634	723259.4043	4426874.983	723278.904	25 meters			
Transect 3	125 °	4426856.595	723258.0694	4426847.951	723281.5776	25 meters			

Transect Photos -- Reclaimed Corehole Pad U



Figure G1 Transect 1 Reclaimed Corehole Pad U

Figure G2 Transect 2 Reclaimed Corehole Pad U



Figure G3 Transect 3 Reclaimed Corehole Pad U