Potter Valley Monitoring Well Construction Report

Potter Valley Water Supply Reliability Study

Prepared for: Sonoma County Water Agency



Prepared by **Jacobs**.

May 2025

Jacobs Engineering Group Inc.

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Acronyms and Abbreviations

CEQA	California Environmental Quality Act
EFRR	East Fork Russian River
GAMA	Groundwater Ambient Monitoring and Assessment
HSA	Hollow-stem auger
PG&E	Pacific Gas & Electric
PVID	Potter Valley Irrigation District
PVP	Potter Valley Project
SWRCB	State Water Resources Control Board
USCS	Unified Soil Classification System

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1. Introduction

This report describes data obtained during installation of monitoring wells in Potter Valley from October 23, 2024 to November 13, 2024. Potter Valley is in Mendocino County, California (Figure 1-1). The monitoring wells were developed to support Sonoma County Water Agency's (Sonoma Water's) Potter Valley Water Supply Reliability Study (Reliability Study). The following sections provide background information and summarize objectives for field investigation.

1.1 Background

For more than 100 years, the Potter Valley has received imports of water from the Pacific Gas & Electric Company's (PG&E's) Potter Valley Project (PVP), which transfers water from the Eel River watershed into the Russian River Watershed. As part of the ongoing water supply agreement with PG&E and its own water rights license, the Potter Valley Irrigation District (PVID) uses a portion of imported PVP water for agricultural purposes in Potter Valley. The remaining water not used by PVID flows down the East Fork Russian River (EFRR) into Lake Mendocino, providing a critical source of water for beneficial users in Mendocino, Sonoma, and Marin Counties, and for ecosystems along the Russian River.

In 2019, PG&E announced that it would not proceed with relicensing the PVP and would instead enter into a license surrender and decommissioning process, with the intention to remove the Scott and Cape Horn dams, and end water diversion operations to the Russian River. In response, the Mendocino County Inland Water and Power Commission, the Round Valley Indian Tribes, and Sonoma Water formed a new entity, the Eel-Russian Project Authority, and submitted a proposal to PG&E to preserve water diversions into the Russian River, while also prioritizing upstream and downstream fish migration in the Eel River. The proposed New Eel-Russian Facility would facilitate ongoing water diversions through the PVP's tunnel between the Eel River and Russian River, while providing for fish migration by removing Scott and Cape Horn dams. Unlike the PVP, which historically has maintained year-round water diversions, the proposed facility would use run-of-river operations, where diversions would occur only when Eel River flows meet as-yet-undefined thresholds for fish passage. As a result, the magnitude and timing of diversions are uncertain, but would change markedly from previous PVP operations, with water transfers likely only occurring when flow thresholds are met during the wet season and ceasing during the dry season.

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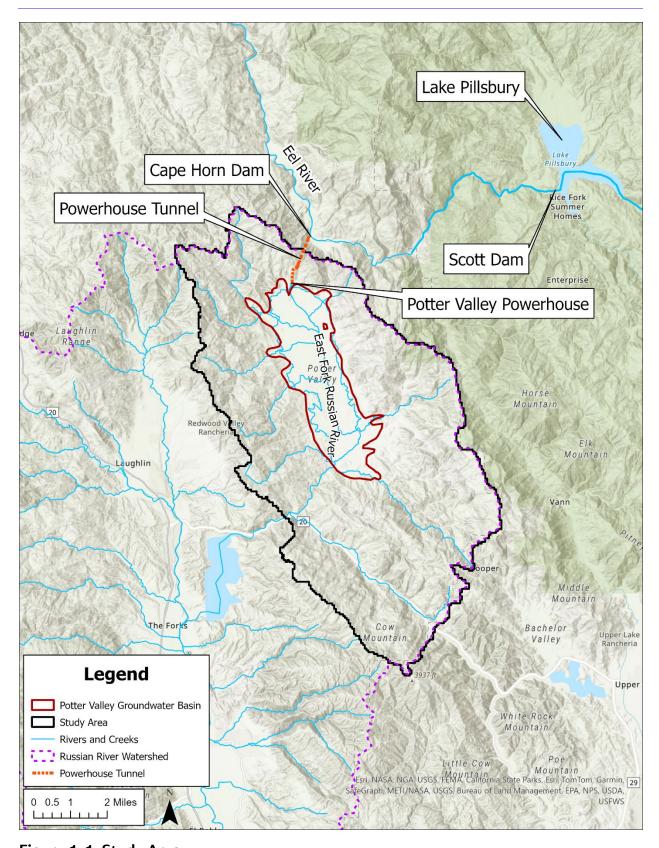


Figure 1-1. Study Area

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Given the uncertainties surrounding the magnitude and timing of future water availability, Sonoma Water's Reliability Study aims to support water supply reliability planning for the Potter Valley through evaluation of hydrogeologic conditions, historical and current agricultural water use and irrigation practices, potential future agricultural water supply, storage, and demand management strategies in Potter Valley.

1.2 Objectives

The primary objectives of the field investigations are to provide data that will help to develop and refine a hydrogeologic conceptual model of the Potter Valley Groundwater Basin (Basin). Specific objectives of field investigations include:

- Collecting data to help determine Basin geometry, including:
 - Determining depth to bedrock
 - Assessing the presence of subsurface geologic and hydrogeologic structures
 - Identifying the distribution of recent/younger alluvial deposits
- Collecting lithologic information to assess the nature of the shallow aquifer, which is less than 100 feet deep
- Collecting water level data to evaluate the spatial and temporal variability of groundwater levels in Potter Valley
- Assessing the horizontal and vertical hydraulic properties of the shallow aquifer
- Evaluating groundwater surface water interaction

To achieve these objectives, Jacobs developed a *Field Work Plan for Potter Valley Water Supply Reliability Study* (Field Work Plan) (Jacobs 2023) and the *Technical Specifications for Construction of Monitoring Wells* (Technical Specifications) (Jacobs 2024). The Technical Specifications outline the procedures, standards, and materials for drilling and construction of monitoring wells.

The proposed monitoring wells included multi-level monitoring location(s) consisting of a cluster of two individual well casings, one shallow and one deeper, and additional shallow monitoring well(s) screened near the water table. At the cluster location(s), the intent was to install a shallow well screen near the water table and a deep well screen targeting coarser-grained interval(s) between the water table and a maximum depth of 80 feet below ground surface (bgs).

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2. Pre-field Activities

Jacobs and Sonoma Water, with assistance from PVID, performed the following preparation activities to site monitoring wells and complete permitting before commencing field activities.

2.1 Monitoring Well Siting

Monitoring well field activities were preceded by a well location assessment. Jacobs used the publicly available databases listed below to identify wells in Potter Valley with available data:

- California Department of Water Resources' (DWR's) Water Data Library (WDL)
- California State Water Resources Control Board's (SWRCB's) Groundwater Ambient Monitoring and Assessment (GAMA) Program website
- SWRCB's GeoTracker website

Based on the distribution of existing wells, Jacobs identified 10 areas in Potter Valley that would be good locations for new monitoring wells to help meet project objectives. These new locations satisfied the following criteria:

- Near an existing well(s) to the extent practical, where a new well could be installed in close proximity and at a different depth to create a well cluster
- Along major drainages to provide data about groundwater/surface water interaction
- Near geophysical transects completed during the earlier geophysical investigation for the project (Appendix B in the Feasibility Report), to provide an additional data set for geophysical interpretation
- In areas where there is not any existing well information

Sonoma Water, with the assistance of PVID staff, identified landowners in Potter Valley willing to grant access to their property for installing monitoring wells. Jacobs and Sonoma Water reviewed the potential new well locations and finalized well sites to best align with the above criteria, which included installing five new monitoring wells in three different locations (refer to Figure 3-1 in Section 3 for locations):

- A two-well cluster (shallow/deep pair) on the north side of Busch Creek
- One shallow well on south side of Busch Creek
- A two-well cluster (shallow/deep pair) on east side of the East Fork of the Russian River

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For planning purposes, shallow wells were proposed to be up to 50 feet deep, and deep monitoring wells were proposed to be up to 80 feet deep. Jacobs incorporated final monitoring well locations into the Technical Specifications, solicited proposals from qualified C-57-licensed drilling contractors, and issued a subcontract to Gregg Drilling, LLC (Gregg) to drill boreholes and install monitoring wells for the project.

2.2 Permitting

The following permitting activities were completed prior to commencing monitoring well drilling and construction:

- Sonoma Water executed license agreements with property owners to obtain access to install monitoring wells and conduct routine monitoring of the wells for the life of theproject
- As the lead agency under the California Environmental Quality Act (CEQA) for the project, Sonoma Water evaluated the environmental impacts from drilling and constructing the new monitoring wells and filed a Notice of Exemption/Categorical Exemption on August 29, 2024
- As discussed in the following section, Jacobs' drilling subcontractor, Gregg, obtained the required well permits from the Mendocino County Division of Environmental Health.

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3. Field Activities

Jacobs retained Gregg to drill boreholes and install monitoring wells in Potter Valley. Drilling and construction occurred between October 23 and November 13, 2024.

3.1 Pre-mobilization Activities

The following permitting and field preparation activities were conducted prior to mobilizing for well drilling and construction:

- Jacobs updated the existing project health and safety plan to incorporate the planned fieldwork.
- Gregg and Sonoma Water met with property owners to mark the proposed boring locations.
- Gregg notified Underground Service Alert (USA) about drilling. As required by USA, borings were called in and marked out in white paint at least 2 business days prior to drilling.
- Gregg Drilling obtained the required well permits from the Mendocino County
 Division of Environmental Health. Permits for drilling activities on each property are
 included in Attachment 1.

3.2 Drilling and Sampling

The borings at each location were advanced using the hollow-stem auger (HSA) drilling method. A 6-inch diameter pilot borehole was drilled, and soil samples were collected using a 2-inch diameter by 2-foot-long California modified split-spoon sampler. Soil samples were collected continuously or at intervals of approximately 5 feet. Pilot borings were advanced to the planned total depth or refusal, which is evident when drilling is met with substantial resistance from consolidated subsurface materials (for example, in bedrock).

Figure 3-1 shows the location of new monitoring wells and boreholes in Potter Valley.

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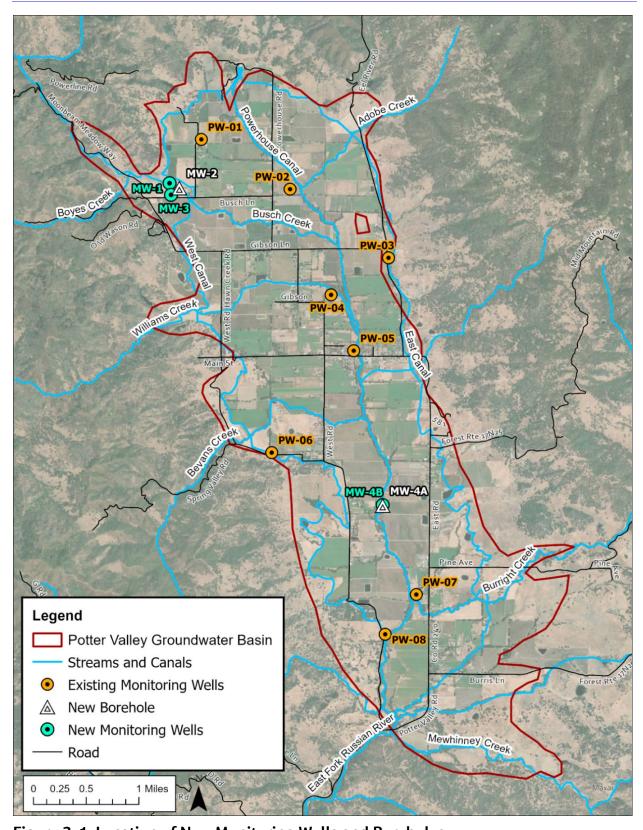


Figure 3-1. Location of New Monitoring Wells and Boreholes

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The lithology was described by a Jacobs field geologist under the direction of a State of California Licensed Professional Geologist. Soil samples were described using visual-manual procedures of ASTM International (ASTM) Standard D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedures) (ASTM 2018) which are based on the Unified Soil Classification System (USCS) for guidance. Color, moisture content, grain size, and other pertinent soil characteristics were included in the lithologic descriptions. Soil samples from each borehole were place in core boxes and transported to the PVID maintenance yard for storage. Borings logs are included in Attachment 2. Photographs of soil core samples from each borehole are included in Attachment 3.

Modifications to the well installation plan were required based on the lithology encountered during borehole drilling, which resulted in construction of three new monitoring wells and abandonment of two boreholes.

The initial plan was to install five new monitoring wells in three different locations (Figure 3-1): a cluster monitoring well north of Busch Creek (MW-1 and MW-2 location), a single shallow monitoring well south of Busch Creek (MW-3 location), and a cluster monitoring well east of the East Fork of the Russian River (MW-4A/B location). Borings were drilled sequentially (MW-1, MW-2, etc.) and the deepest boring was advanced to total depth at monitoring well clusters to provide information to design shallow and deep monitoring wells. A summary of the borehole drilling results and modifications to the well installation plan are summarized by location below.

3.2.1 North Side of Busch Creek (MW-1 and MW-2)

Initially planned as a shallow/deep monitoring well cluster, weathered bedrock was encountered at the MW-1 location at approximately 32 feet bgs, and a single shallow monitoring well was installed. An additional borehole was advanced approximately 530 feet to the southeast and toward the interior of the valley at the MW-2 location to install a deep well. Refusal was encountered at 24 feet bgs at MW-2 with fragments of bedrock in the last soil sample recovered. The MW-2 borehole was abandoned.

3.2.2 South Side of Busch Creek (MW-3)

Initially planned as a single shallow monitoring well, the borehole at MW-3 was drilled deeper to potentially install a deep well along Busch Creek. Weathered bedrock was encountered at approximately 32 feet bgs and a single shallow monitoring well was installed.

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3.2.3 East Side of the East Fork of the Russian River (MW-4A/B)

The pilot borehole for MW-4B was drilled and soil samples were collected at 5-foot intervals to the planned depth of 80 feet bgs. The depth to water in the MW-2B borehole stabilized at approximately 21 feet bgs after recovering overnight, and a deep monitoring well was constructed. Soil samples collected for logging from MW-4B were primarily clay across the apparent water table, between 18 and 30 feet bgs, and were dry above this depth interval. MW-4A was advanced and soil samples were collected continuously between 15 and 30 feet bgs to confirm the presence of continuous fine-grained material. Due to the presence of a continuous clay sequence and lack of permeable materials across the water table, the MW-4A borehole was abandoned.

3.3 Monitoring Well Installation

Based on drilling and sampling results, monitoring wells were installed at MW-1, MW-3, and MW-4B. The new monitoring wells were constructed of 4-inch-diameter Schedule 80 polyvinyl chloride (PVC) casing and screens at MW-1, MW3, and MW-4B. Each monitoring well was completed with a 20-foot-long, 0.01-inch slot screen set at the total depth of each well.

The well annulus was backfilled with No. 2/12 gradation sand filter pack to approximately 2 to 4 feet above the top of the screen and hydrated bentonite chips were placed above the filter pack. Neat cement grout was installed above the bentonite chips to ground surface. Boreholes at MW-2 and MW-4A were abandoned by backfilling with neat cement grout. Surface completions consisted of a 12-inch diameter standpipe approximately 3 feet above ground with four protective bollards at MW-1 and MW-4B and a 12-inch-diameter traffic-rated well box with a concrete apron, raised approximately 0.5-foot above ground at MW-3.

Groundwater monitoring wells were constructed, and boreholes were abandoned in accordance with State of California requirements outlined in the *California Well Standards*, Bulletins 74-81 and 74-90 (DWR 1981, 1991). Borehole drilling and well construction details are presented in Table 3-1. Well completion diagrams for new monitoring wells are included in Attachment 4. Attachment 5 contains well completion reports filed with DWR.

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Table 3-1. Borehole and Well Construction Details

Location	Pilot Borehole Depth ^[a] (feet bgs)	Reamed Borehole Depth ^[a] (feet bgs)	Well Depth ^[b] (feet bgs)	Screened Interval ^[c] (feet bgs)	Filter Pack ^[d] (feet bgs)	Bentonite Seal ^[e] (feet bgs)	Neat Cement Seal (feet bgs)
MW-1	42	33	32	12 to 32	10 to 33	8 to 10	0 to 8
MW-2	24	No monito	ring well in	stalled at MW-	2; borehole a	bandoned.	0 to 24
MW-3	70	40	38	18 to 38	14 to 40	12 to 14	0 to 12
MW-4A	30	No monitoring well installed at MW-4A; borehole abandoned.					0 to 30
MW-4B	80	80	80	60 to 80	56 to 80	47 to 56	0 to 47

Notes:

3.4 Well Development

The monitoring wells were developed by a combination of bailing, swabbing, and purging with an electric submersible pump. Field parameters such as pH, temperature, electrical conductivity, and turbidity were measured periodically using calibrated field instruments. Development continued until the field parameters stabilized. Water discharged during well development was discharged to ground surface.

Table 3-2 summaries static water levels, pumping rates and volumes purged, and final field parameters for each well at the end of well development. Copies of the well development logs are included in Attachment 6.

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[[]a]Pilot boreholes were 6-inch diameter. Reamed boreholes were 10-inch diameter for well construction. The annular space in the pilot, below the reamed borehole depth was filled with native material.

[[]b]Well casing is 4-inch diameter Schedule 80 PVC.

[[]c] Well screen is 4-inch diameter Schedule 80 PVC, factory slotted with 0.010-inch slots.

[[]d]Filter pack material is 2/12 gradation sand.

[[]e]Bentonite seals are 3/8-inch (hydrated) bentonite.

Table 3-2. Well Development Summary

Well	Static Depth to Water (ft btoc)	Purge Rate (gpm)	Volume Purged (gallons)	pН	EC (mS/cm)	DO (mg/L)	Temp (C)	Turbidity (NTU)
MW-1	20.80	0.5	123	7.26	0.34	3.19	19.21	407
MW-3	14.05	1.0	165	7.08	0.25	2.72	18.10	5.0
MW-4B	20.18	0.25-1.0	203	7.28	0.41	1.01	18.18	27.4

Notes:

btoc = below top of casing
C = degrees Celsius
EC = electrical conductivity
gpm = gallons per minute
mg/L = milligrams per lite
mS/cm = milliSeimens per centimeter
NTU = nephelometric turbidity units

3.5 Investigation-derived Waste Management

Investigation-derived waste generated during drilling included soil cuttings and well development water. Soil cuttings were spread in the area surrounding each drilling location and water produced during well development was discharged to land surface. When discharging water to land, best management practices were used to prevent erosion of soil and runoff to adjacent properties and surface water bodies.

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4. References

- ASTM International (ASTM). 2018. ASTM D2488, <u>Standard Practice for Description and Identification of Soils (Visual-Manual Procedures)</u>. April.
- California Department of Water Resources (DWR). 1981. <u>Water Well Standards: State of California</u>. Bulletin 74-81. December.
- California Department of Water Resources (DWR). 1991. <u>California Well Standards.</u> <u>Bulletin 74-90</u>. Supplement to Bulletin 74-81. June.
- Jacobs. 2023. Field Work Plan for Potter Valley Water Supply Reliability Study, Potter Valley Water Supply Reliability Study. June 22.
- Jacobs. 2024. Technical Specifications for Construction of Monitoring Wells, Potter Valley Water Supply Reliability Study. June 24.

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Attachment 1 Monitoring Well Permits



Environmental Health, Hazardous Materials

860 N Bush Street, Ukiah, CA, 95482 707-234-6625

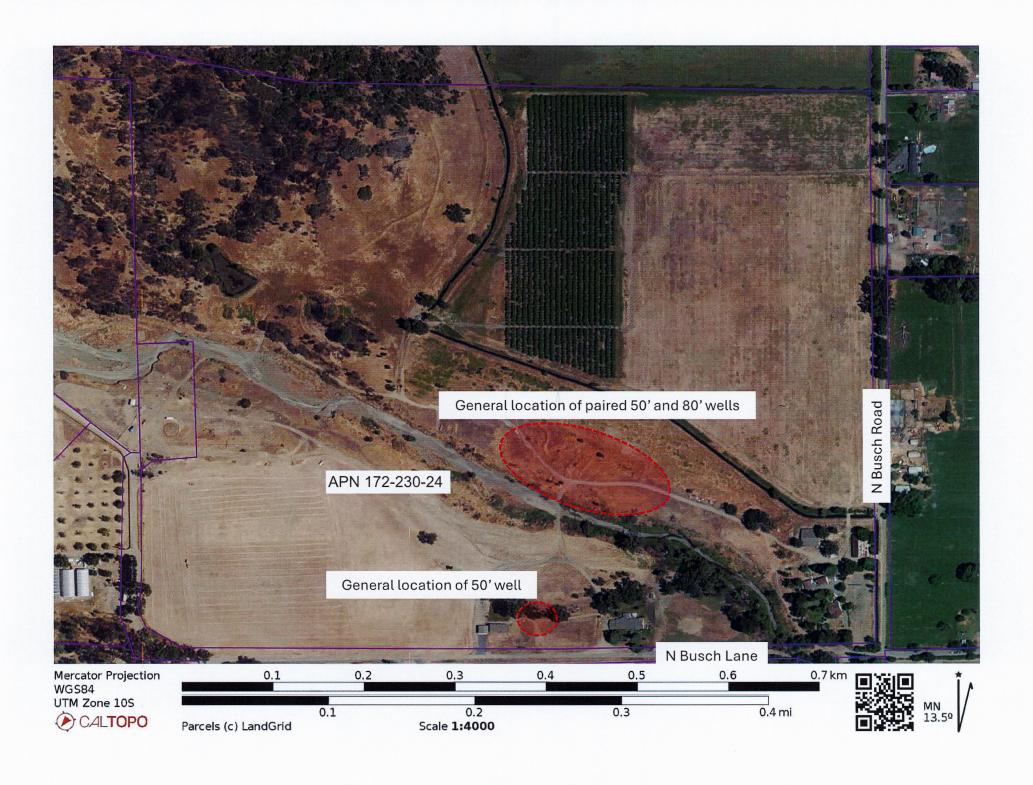
PERMIT

(For Official Use Only)

MONITORING WELL APPLICATION

To Construct, Destroy, Repair, or Alter: Monitoring Wells, Cathodic Wells, Remediation Wells or Borings	Date Paid: 10/15/24
	833 Number: MC004482
Application is hereby made to the Mendocino County Division of Environmental Health for a permit to perform the work as indicated below at the following site location:	Payment # XR123493 Rec'd By: AR
Site Name: Potter Valley Water Supply Reliability Study (Sonoma County Water Agency) Phone: 707-547-1900	Permit Agreement: I hereby agree to construct, destroy, repair or alter all wells or borings on this
Address: 13500 N Busch Road City: Potter Valley	permit application in accordance with the "Permit Terms And Conditions" as stated above and in compliance with the Mendocino County Well Ordinance (County
Property Owner Address: 13500 N Busch Road	Code Chapter 16.04) and the California Well Standards Bulletin 74-81 & 74-90 as they are amended from time to time.
City: Potter Valley State: CA Zip: 95469	I understand that this permit expires one year from the date of issuance (Mendocino County Code Section 16.04.090).
APN: 172-230-24 Anticipated Drill Date: 10/23/24 Work Information: Indicate below the total number of wells already existing on the site:	For Known Contaminated Sites: I understand that the North Coast Regional Water Quality Control Board requires an approved Work Plan prior to the start of any field work under this permit. [Please call (707) 576-2220 for questions regarding work plan approval.]
Domestic Water Wells Monitoring Wells Type of Work Proposed: Construction	For Sites within the Coastal Zone: I understand that the Department of Planning and Building requires a Coastal Zone Permit prior to the start of any field work under this permit, and that they may require additional permit fees.
Indicate below the total number of proposed wells or borings for each type listed:	Print Name: KOYAN LEA
Monitoring Wells Cathodic Wells Borings/hydropunches	Signature: Date: 107 2024
Consultant and Contractor Information:	
Consulting Firm: Jacobs Bus. Lic? No	E-Mail Address: rlea@ greggdrilling.com
Address: 2600 Michelson Dr Suite 500 City: Irvine Zip: 92612 Contact Name and Email Address: BJ Lechler bj.lechler@jacobs.com Phone #: 714-697-4203	Coastal Zone Approval:
Driller/Contractor: GREGA DRILLING LLC Bus. Lic? No	(Signature) Date:
C-57 License #: 1044456 Phone #: 925-313-5800	Permit Approval: This application is deemed as approved and issued when signed and dated by a Mendocino County Health Officer in the space provided on the lines below:
Address: 2100 GODVEAR RD. City: BENICIA Zip: 94510	
Permit Terms and Conditions provide that the contractor will:	Issued By: William Nalty 1600724
 Secure the authorization of the property owner. Submit written authorization(s) from the off-site property owner(s) for all off-site work. Complete the Site Plot Sketch according to the instructions on the back of this application. Consult with the inspector for an available inspection date a minimum of 5 days prior to scheduling field activities. 	Health Officer's Signature Date Final Approval By:
 Schedule field work to commence after a permit has been issued. Place seals by "free fall" (without a tremie pipe) only in dry intervals of less than 30 feet BGS. 	Health Officer's Signature Date
 Construct surface seal/cover to prevent physical damage, unauthorized access,& contamination. Submit a State of California Well Completion Report/Log or an "As Constructed" Well Log, or a Destruction Log of the Soil Boring within 15 days of completion as a requirement for final approval [Mendocino County Code Section 16.04.060 (c)]. (Final approval will not be given without the log(s) or sketch.) 	Date Boring and Well Logs Were Received:

(S:)EHWebDocs/HazMat/ApplicationForms





Environmental Health, Hazardous Materials

860 N Bush Street, Ukiah, CA, 95482 707-234-6625

MONITORING WELL APPLICATION

To Construct, Destroy, Repair, or Alter: Monitoring Wells, Cathodic Wells, Remediation Wells or Borings

Application is hereby made to the Mendocino County Division of Environmental Health for a permit to perform the work as indicated below at the following site location: Phone: 707-547-1900 Potter Valley Water Supply Reliability Study (Sonoma County Water Agency) Site Name: City: Potter Valley 10510 Eastside Road Address: Property Owner Address: 10510 Eastside Road State: CA Zip: 95469 Potter Valley 175-190-36 Anticipated Drill Date: 10/23/24 Work Information: Indicate below the total number of wells already existing on the site: Monitoring Wells 0 Domestic Water Wells Type of Work Proposed: Construction Destruction Repair Alteration/Conversion Indicate below the total number of proposed wells or borings for each type listed: Cathodic Wells ___ Monitoring Wells _ Borings/hydropunches **Consultant and Contractor Information: Jacobs** Bus. Lic? Consulting Firm: 2600 Michelson Dr Suite 500 Address: city: Irvine Zip: 92612 Contact Name and Ernail Address: BJ Lechler bj.lechler@jacobs.com Phone #: 714-697-4203 Driller/Contractor: GREGE DRILLING LL C-57 License #: Phone #: 925-313-5800 Address: 2100 GODYEAR RD. City: BENICIA Permit Terms and Conditions provide that the contractor will: Secure the authorization of the property owner. Submit written authorization(s) from the off-site property owner(s) for all off-site work. Complete the Site Plot Sketch according to the instructions on the back of this application. Consult with the inspector for an available inspection date a minimum of 5 days prior to scheduling field activities. Schedule field work to commence after a permit has been issued. Place seals by "free fall" (without a tremie pipe) only in dry intervals of less than 30 feet BGS.

Construct surface seal/cover to prevent physical damage, unauthorized access,& contamination.

16.04.060 (c)]. (Final approval will not be given without the log(s) or sketch.)

Submit a State of California Well Completion Report/Log or an "As Constructed" Well Log, or a Destruction Log of the Soil Boring within 15 days of completion as a requirement for final approval [Mendocino County Code Section

(For Official Use (Only)	DEDAME						
Data Daid	10/15/24	PERMIT						
Date Paid:		Number: MC004481						
Fee Paid \$	787							
Payment #	XR123494							
I hereby agree to permit application stated above and Code Chapter 16.0	Permit Agreement: I hereby agree to construct, destroy, repair or alter all wells or borings on this permit application in accordance with the "Permit Terms And Conditions" as stated above and in compliance with the Mendocino County Well Ordinance (County Code Chapter 16.04) and the California Well Standards Bulletin 74-81 & 74-90 as they are amended from time to time.							
I understand that County Code Secti		one year from the date of issuance (Mendocino						
Water Quality C	control Board requunder this permit. [I understand that the North Coast Regional ires an approved Work Plan prior to the start Please call (707) 576-2220 for questions						
Planning and Build	ding requires a Coa	: I understand that the Department of stal Zone Permit prior to the start of any field may require additional permit fees.						
C-57 Contracto	r Signature:							
Print Name:	AN LEA							
Signature: 1	Den	Date: 10 7 2024						
E-Mail A	address: real	agragatilling com						
Coastal Zone	e Approval:							
(Signature)		Date:						
Permit Approval: This application is deemed as approved and issued when signed and dated by a Mendocino County Health Officer in the space provided on the lines below:								
Issued By: William Malty 160cT24 Health Officer's Signature Date								
	Health Office	per's Signature Date						
Final Approval	Health Office	cer's Signature Date Officer's Signature Date						



Attachment 2 Boring Logs



BORING NUMBER

MW-1

SHEET 1 OF 2

SOIL BORING LOG

PROJECT: Potter Valley Water Supply Reliability Study LOCATION: Potter Valley, CA

ELEVATION: ~1,007 ft msl DRILLING CONTRACTOR: Gregg Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger; CME 850X START: 10/23/2024 FINISH: 10/23/2024

START		10/23/		MENT USED: Hollow Stem Auger; CME 850X FINISH: 10/23/2024	LOGGER: M. Weir
DEPTH B	BELOW S	URFAC	E (FT)	SOIL DESCRIPTION	COMMENTS
	INTERV	AL (FT)			
		RECO\	BLOW COUNTS PER 6"	SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	DEPTH OF CASING, DRILLING RATE, TESTS, INSTRUMENTATION, SAMPLE ID, AND ORGANIC VAPOR READING (PID)
_	0-2	-	-	Clayey gravel (GC), brown (7.5YR 5/4), dry, firm, subangular/subrounded gravel.	Hand auger first 2 ft 10/23/2024 1110
-	2-4	2	5-7-9-10	Similar to above (GC) with coarse gravel (subangular/subrounded). Large jasper nodules noted.	10/23/2024 1145
5_	4-6	2	11-14-12- 13	Similar to above (GC) with quartzite cobbles (12 in diameter) subangular/subrounded, firm, epidote noted.	10/23/24 1150 —
-	6-8	2	9-11-24- 16	Similar to above (GC), brown (10YR 4/3), moist, subangular/subrounded gravels, iron staining noted.	10/23/24 1200
-	8-10	2	9-6-13-16	Similar to above (GC), strong brown (7.5YR 4/6), moist.	10/23/24 1205
10 _ -	10-12	2	3-11-13- 16	Similar to above (GC), strong brown (7.5YR 4/6), moist.	10/23/24 1210
-	12-14	2	7-12-14- 12	Similar to above (GC).	10/23/24 1215
- 15 _	14-16	2	7-9-10-11	Similar to above (GC).	10/23/24 1220
-	16-18	2	6-11-9-6	Clayey gravel (GC) transitioning to Fat clay (CH) at 18', brown (7.5YR 4/4), wet, firm clay.	10/23/24 1300; Driller identified water at 18 ft bgs
-	18-20	2	5-7-9-15	Gravely fat clay (CH), brown (7.5YR 4/3), gravel consists of weathered rock fragments (subangular/subrounded), iron staining noted.	10/23/24 1305
20	20-22	1.5	2-6-12-8		10/23/2024 1310
_	22-24	1.5	8-12-10- 10	Similar to above (GC-GM), wet, subangular/subrounded gravels with sand increasing, iron staining noted on clasts.	10/23/24 1320
25 _	24-26	2	6-13-14- 14	Clayey/silty sand (SC-SM), brown (7.5YR 4/4), firm sand, wet, iron staining noted.	10/23/24 1330
_	26-28	1	9-11-14- 50	Similar to above (SC-SM), half run had no recovery.	10/23/24 1340
-	28-30	2	6-25-24- 24	Similar to above (SC-SM), dark brown (7.5YR 3/3), wet, increase in coarse grained sand (subrounded).	10/23/24 1350
30					



BORING NUMBER

MW-1

LOGGER:

SHEET 2 OF 2

M. Weir

SOIL BORING LOG

PROJECT: Potter Valley Water Supply Reliability Study LOCATION: Potter Valley, CA

ELEVATION: ~1,007 ft msl DRILLING CONTRACTOR: Gregg Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger; CME 850X START: 10/23/2024 FINISH: 10/23/2024

START:				FINISH: 10/23/2024	LOGGER: M. Weir
	BELOW SURFACE (FT)		E (FT)	SOIL DESCRIPTION	COMMENTS
	INTERV				
		RECOV	BLOW COUNTS PER 6"	MINERALOGY.	DEPTH OF CASING, DRILLING RATE, TESTS, INSTRUMENTATION, SAMPLE ID, AND ORGANIC VAPOR READING (PID)
-	30-32	2	9-15-14- 12	Silty/clayey gravel with sand (GC-GM), brown (7.5YR 4/4), wet, friable, coarsening downward to cobbles at 32' (subangular/subrounded)	10/23/2024 1402
-	32-34	2	9-17-50- 50	Weathered bedrock (sandstone), wet, transitions from GC/GM to weathered bedrock	10/23/24 1415
35 _	34-36	0.5	50 (6")	Similar to above, weathered bedrock.	10/23/24 1425; recovery decreasing with depth
_	36-38	0.33	50 (4")	Similar to above, weathered bedrock.	10/23/24 1440
-	38-40	0	-	No recovery.	10/23/24 1450
40	40-42	0.25	50 (3")	Fractured sandstone, quartz, feldspar, subangular/subrounded grains.	10/23/24 1500; refusal at 42 ft bgs
-				TOTAL DEPTH 42 FEET	
- 45					
-					
_					
50 <u> </u>					
-					
-					
55					
-					
- 60					



BORING NUMBER MW-2

SHEET 1 OF 1

SOIL BORING LOG

PROJECT: Potter Valley Water Supply Reliability Study LOCATION: Potter Valley, CA

ELEVATION: ~1,006 ft msl DRILLING CONTRACTOR: Gregg Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger; CME 850X START: 10/24/2024 FINISH: 10/24/2024

START:		10/24/2		MENT USED: Hollow Stem Auger; CME 850X FINISH: 10/24/2024	LOGGER: M. Weir		
DEPTH B				SOIL DESCRIPTION	COMMENTS		
	INTERV		. ,				
		RECOV	BLOW COUNTS PER 6"	SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	DEPTH OF CASING, DRILLING RATE, TESTS, INSTRUMENTATION, SAMPLE ID, AND ORGANIC VAPOR READING (PID)		
-	0-2	-	-	Clayey gravel (GC), brown (7.5YR 5/4), dry, soft.	10/24/2024 1315; first 2 ft hand cleared –		
_	2-4	2	18-20-2- 18	Similar to above (GC), brown (7.5YR 4/4), dry, stiff, fining downward.	10/24/2024 1320 -		
5_	4-6	2	7-16-16- 18	Similar to above (GC), brown (7.5YR 4/4) dry, stiff, subangular/subrounded gravel, fine to medium sand, some silt.	10/24/2024 1328 —		
_	6-8	2	4-4-6-7	Similar to above (GC), moist, soft, subangular/subrounded gravel	10/24/2024 1334		
- - 10	8-10	2	4-7-12-16	Clayey gravel with sand (GC), dark brown (7.5YR 3/2), wet, soft, subangular/subrounded gravel/cobbles, black mottling noted around 9 ft bgs with some fat clay (CH).	10/24/2024 1338 – -		
_	10-12	2	8-12-13- 17	Similar to above (GC).	10/24/2024 1343 		
_	12-14	2	15-15-11- 14	Similar to above (GC), brown (7.5YR 4/4), wet, soft, iron staining noted throughout.	10/24/2024 1350 —		
15_	14-16	2	9-14-11-8	Similar to above (GC), grading into silty/clayey sand (SM/SC), strong brown (7.5YR 5/6), wet, some coarse gravel at 16'.	10/24/2024 1355 —		
_	16-18	2	10-14-15- 25	Clayey gravel with sand (GC), strong brown (7.5YR 5/6), wet, firm, trace silt, iron staining, subangular/subrounded gravel, cobbles noted at 18'.	10/24/2024 1405 —		
	18-20	2	10-13-11- 15	Similar to above (GC), without cobbles.	10/24/2024 1415		
	20-22	2	3-12-18- 26	Similar to above (GC), fining downward (gravel decreasing), iron staining noted.	10/24/2024 1418		
_	22-24	0.4	9-50 (5")	Silty sand with gravel (SM), brown (7.5YR 4/4), wet, soft, fine, medium and coarse sand (subangular/subrounded).	10/24/2024 1428; drilling becomes difficult –		
25	24-26	0.1	50 (1")	TOTAL DEPTH 24 FEET	10/24/2024 1440; attempt sample at 24'; no appreciable recovery; what was recovered appear to be schist fragment (bedrock). Refusal at 24 ft bgs.		
30					-		



BORING NUMBER

MW-3

SHEET 1 OF 3

SOIL BORING LOG

PROJECT: Potter Valley Water Supply Reliability Study LOCATION: Potter Valley, CA

ELEVATION: ~1,012 ft msl DRILLING CONTRACTOR: Gregg Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger; CME 850X START: 10/25/2024 FINISH: 10/28/2024

START :		10/25/		MENT USED : Hollow Stem Auger; CME 850X FINISH : 10/28/2024	LOGGER: M. Weir
DEPTH B	ELOW S	URFACI	E (FT)	SOIL DESCRIPTION	COMMENTS
	INTERV				
		RECO\	/ERY (FT)	SOIL NAME, USCS GROUP SYMBOL, COLOR,	DEPTH OF CASING, DRILLING RATE,
			BLOW	MOISTURE CONTENT, RELATIVE DENSITY,	TESTS, INSTRUMENTATION, SAMPLE
			COUNTS PER 6"	CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	ID, AND ORGANIC VAPOR READING (PID)
	0-2	-	-	Hand cleared. Clayey gravel (GC).	10/25/24 0810
_					-
_					-
	2-4	2		Silty/clayey gravel with sand (GM-GC), strong brown (7.5YR 5/6),	10/25/24 0815; Continuous split
_			38	dry, stiff, up to cobble size coarse clasts	spoon sampling begins
_				(subangular/subrounded).	
5	4-6	2		Similar to above (GM-GC), stiff, dry, gravel	10/25/24 0823
J _			18	subangular/subrounded, fat clay (CH) at 6'.	_
_					
	6-8	2		Similar to above (GM-GC), slight decrease in gravel/cobbles,	10/25/24 0830
_			20	strong brown (7.5YR 5/6), dry, stiff.	
-	0.40	2	16 22 25	Similar to above (CM CC), atrana brown (7 EVD E/G), dec. firms	10/25/24 0929: your atiff difficult to
_	8-10	2	40	Similar to above (GM-GC), strong brown (7.5YR 5/6), dry, firm, subangular/subrounded gravel, iron staining noted, trace cobbles.	10/25/24 0838; very stiff, difficult to remove from split spoon/shoe.
4.0			40	subangular/subnounded graver, from staining noted, trace cobbles.	remove nom spili spoon/snoe.
10_	10-12	2	17 22 20	Similar to above (GM-GC).	10/25/24 0846
_	10-12		38	Similar to above (Givi-GC).	10/23/24 0840
			30		
_	12-14	2	15-26-15-	Similar to above (GM-GC), slight decrease in cobbles, dry, firm.	10/25/24 0853
_	. 12-17	_	10	ominar to above (GW-GG), slight decrease in cobbles, dry, min.	10/23/24 0033
			10		
_	14-16	2	6-13-11-	Similar to above (GM-GC), moist, iron staining at 16'.	10/25/24 0900; Moisture content
15		_	14	ommar to above (em ee), motet, non etaming at re-	increasing with depth.
					,
_	16-18	2	4-9-12-16	Clayey gravel (GC), brown (7.5YR 5/4), wet, firm, fine, med,	10/25/24 0907
-				coarse sand noted, trace cobbles (subangular/subrounded).	
_	18-20	2	9-15-15-	Similar to above (GC), light brown (7.5YR 6/4), wet, poorly	10/25/24 0915
-			10	sorted.	
20					_
	20-22	2	11-13-9-	Similar to above (GC).	10/25/24 0922
-			10		
_					
	22-24	2	9-13-16-	Similar to above (GC), slight color change to brown (7.5YR 4/4),	10/25/24 0930
-	•		15	wet.	
_					
25	24-26	2	8-14-18-	Similar to above (GC), wet, iron staining and black mottling noted.	10/25/24 0939
23_	•		23		_
_					10/07/04 0000
	26-28	2	6-1626-	Clayey gravel (GC), brown (7.5YR 4/4), wet, loose, grades to	10/25/24 0952
_			31	clayey sand (SC), strong brown (7.5YR 4/6), moist, firm, iron	
_	00.00		0.04.0=	staining, weathered rock fragments with fine to medium sand	40/05/04 4000
	28-30	2	8-24-27-	Clayey/silty sand (SC-SM), reddish yellow (7.5YR 6/4), wet, firm, abundant iron staining noted, trace gravel/ cobbles	10/25/24 1003
-			50	abundant iron staining noted, trace grave// cobbles (subangular/subrounded), weathering products (chlorite,	
30				(orabangaran/subrounded), weathering products (officially,	

PROJECT NUMBER W8Y25100

BORING NUMBER MW-3

SHEET 2 OF 3

SOIL BORING LOG

PROJECT: Potter Valley Water Supply Reliability Study LOCATION: Potter Valley, CA

ELEVATION: ELEVATION: ~1,012 ft msl
DRILLING METHOD AND EQUIPMENT USED: DRILLING CONTRACTOR: **Gregg Drilling**

Hollow Stem Auger; CME 850X

START: 10/25/2024				FINISH:	LOGGER: M. Weir
DEPTH B	BELOW S		E (FT)	SOIL DESCRIPTION	COMMENTS
	INTERV	_ ` ′	/ERY (FT) BLOW COUNTS PER 6"	SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	DEPTH OF CASING, DRILLING RATE, TESTS, INSTRUMENTATION, SAMPLE ID, AND ORGANIC VAPOR READING (PID)
-	30-32	1.25	18-48-50 (3")	Clayey sand (SC) grading into clayey gravel (GC), strong brown (7.5YR 4/6), wet, iron staining and weathering minerals noted with brecciated rock fragments at 32', appears to be weathered	10/25/24 1015 advancing split spoon with minimal result, crew drills past.
_	32-34	2	14-27-33- 35	Weathered bedrock (sandstone) with chert/ jasper nodules, dark bluish gray (5B 4/1), moist to wet, very dense sand, cryptocrystalline quartz veins noted throughout.	10/25/24 1033 Significant color change noted after drilling past.
35 _	34-36	2	9-12-16- 29	Similar to above (weathered bedrock/sandstone), some clays noted, decrease in crypto-crystalline quartz noted iron staining noted throughout, similar color.	10/25/24 1047 —
_	36-38	1.9	19-24-40- 50 (5")	Similar to above (weathered bedrock/sandstone), dark bluish gray (5B 4/1), moist, dense, increasing clays, some silt present, no iron staining noted.	10/25/24 1103, drilling rate slowing with depth
- - 40	38-40	1.9	22-40-45- 50 (5")	Similar to above (weathered bedrock/sandstone), dark greenish gray (10BG 4/1), upper portion wet, lower moist to dry, weathering minerals noted.	10/25/24 1126, from 32 ft bgs on appears to be weathered bedrock
- -	40-42	2	9-7-28- 30	Similar to above (weathered bedrock/sandstone), sandstone fragments, bluish gray (5B 5/1), wet.	10/25/24 1135, clay increasing with depth
_	42-44	2	21-33-46- 50	Similar to above, slight color change to bluish black (10B 2.5/1), appears to remain weathered bedrock, clay, sands, and rock fragments, clay increasing, medium to high plasticity.	10/25/24 1154
45 <u> </u>	44-46	1.75	13-32-48- 50 (3")	Similar to above, clayey/ silty sands with rock fragments, bluish black (10B 2.5/1), moist, firm CL/CH clay, still appears to be weathered bedrock	10/25/24 1243, stop drilling for day —
_	46-48	2	13-28-32- 33	Similar to above, bluish black (10B 2.5/1), firm, dry to moist.	10/28/24 1048, resume drilling
- - 50	48-50	2	8-20-31- 50	Similar to above.	10/28/24 1105
_	50-52	2	10-27-34- 50	Similar to above, lean clay (CL), bluish black (10B 2.5/1), medium plasticity, silty with trace clastics, parts of the sample have a micaceous sheen.	10/28/24 1123
_	52-54	1.2	9-38-50 (2")	Similar to above.	10/28/24 1148, Unable to collect sample, attempt to drill past.
55 <u> </u>	54-56	0.5	55 (6")	Similar to above grading into what appears to be fine-grained weathered bedrock (phyllite/schist/shale?), foliations/laminations noted, chlorite noted likely associated with weathering.	10/28/24 1210
_	56-58	0.5	58 (6")	Similar to above, bluish black (10B 2.5/1), dry to moist, brittle, mineralized veins noted throughout, chlorite noted.	10/28/24 1230
_	58-60	0	N/A	No recovery.	Drill top 60' for next sample
60					



BORING NUMBER MW-3

SHEET 3 OF 3

SOIL BORING LOG

PROJECT: Potter Valley Water Supply Reliability Study LOCATION: Potter Valley, CA

ELEVATION: ~1,012 ft msl DRILLING CONTRACTOR: Gregg Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger; CME 850X
START: 10/25/2024 FINISH:

START		10D Ar 10/25/2		MENT USED : Hollow Stem Auger; CME 850X FINISH :	LOGGER: M. Weir
DEPTH B				SOIL DESCRIPTION	COMMENTS
PLYIND	INTERV		- (1 1)	SOIL DESCRIFTION	COIVIIVILINIS
			BLOW COUNTS PER 6"	SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	DEPTH OF CASING, DRILLING RATE, TESTS, INSTRUMENTATION, SAMPLE ID, AND ORGANIC VAPOR READING (PID)
-	60-62	0.9	25-50 (4.5")	Weathered bedrock, with clay, bluish black (10B 2.5/1), fragments of blue schist/ greenstone noted, laminated, brittle, weakly foliated.	10/28/24 1320 Low recovery continues through weathered – bedrock material, but able to advance
-	62-64	1	37-65 (6")	Similar to above (weathered bedrock), bluish black (10B 2.5/1), weathering product minerals (chlorite, hematite) noted.	10/28/24 1348 –
65	64-66	0.5	65 (6")	Similar to above (weathered bedrock), with lenses of green/blueish-green schist/phyllite, crypto-crystalline quartz noted.	10/28/24 1410 —
-	66-68	1.25	34-45-50 (3")	Similar to above (weathered bedrock), weakly foliated with micaceous sheen noted throughout, green veins noted (schist/epidote/chlorite?), color similar to above.	10/28/24 1449 —
	68-70	0.5	72 (6")	Similar to above, very dark blueish grey (10B 3/1), less weathered with depth, schist/ phyllite, foliated.	10/28/24 1520, refusal at 70 ft bgs –
70 _				TOTAL DEPTH TO FEET	
				TOTAL DEPTH 70 FEET	
_					_
I _					_
_					_
_					_
75 _					
_					_
_					-
_					_
-					_
80					
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85					
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_					_
_					-
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-					_
90					

PROJECT NUMBER W8Y25100

BORING NUMBER

MW-4A

LOGGER:

SHEET 1 OF 1

M. Weir

SOIL BORING LOG

PROJECT: Potter Valley Water Supply Reliability Study LOCATION: Potter Valley, CA

ELEVATION: ~921 ft msl DRILLING CONTRACTOR: Gregg Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger; CME 850X START: 11/1/2024 FINISH: 11/1/2024

DEPTH BELOW SURFACE (ET) SOIL DESCRIPTION

DEPTH BELOW SURFACE (FT)				SOIL DESCRIPTION	COMMENTS
	INTERVAL (FT)				
		-	/ERY (FT)	SOIL NAME, USCS GROUP SYMBOL, COLOR,	DEPTH OF CASING, DRILLING RATE,
			BLOW	MOISTURE CONTENT, RELATIVE DENSITY,	TESTS, INSTRUMENTATION, SAMPLE
			COUNTS	CONSISTENCY, SOIL STRUCTURE,	ID, AND ORGANIC VAPOR READING (PID)
			PER 6"	MINERALOGY.	ID, AND ORGANIC VAI OR READING (I ID)
			I LIV 0	WIIIVETCALOOT:	
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					_
_					_
15					
	15-16	1	9-11	Clayey sand (SC), strong brown (7.5YR 5/6), dry, firm, some clay (CL)	11/01/24 1049
_	. 10 10	<u>'</u>	0 11	noted, low plasticity.	_
			9-12-15-	Similar to above (SC) 16-17 ft bgs, graded to lean clay (CL) at 17	11/01/24 1059, clay increasing with
_	16-18	2		ft bgs, brown (7.5YR 4/4), dry, hard, low plasticity, distinct color	depth -
			17	change at 18' to very dark gray (N 3/).	
_					44/04/04 4440
		_	16-11-23-	Similar to above (CL), dark gray (N 4/), dry, firm, low plasticity,	11/01/24 1113
_	18-20	2	29	iron staining noted throughout.	_
20			23		
I -		Ì		Fat clay (CH) starting at 20.5 ft bgs, dark bluish gray (5B 4/1),	
_	20-22	2	6-14-13-	moist, soft, high plasticity.	
	20-22		16	moiot, sort, riigh plasticity.	
_					-
				Similar to above (CH), slight color change to gray (5Y 5/1), moist,	11/01/24 1135
_	22-24	2	3-7-9-13	soft to firm, high plasticity.	_
_	 			Cimilar to above (CLI), dark bluigh array (FD 4/4), as sist ()	- 14/04/04 1440
25_				Similar to above (CH), dark bluish grey (5B 4/1), moist to wet,	11/01/24 1140
	24-26	2	3-3-9-12	soft, high plasticity.	_
_	—			Similar to above (CH).	11/01/24 1156
	00.00	0	2676	Cirrinal to above (Orij).	17,57/27 1100
I	26-28	_2	3-6-7-9		
_					_
				Similar to above (CH), color varies from dark bluish grey (5B 4/1)	11/01/24 1207, end of drilling/
_	28-30	_2	3-7-9-13	to yellowish brown (10YR 5/4), moist, soft to firm, high plasticity.	sampling, hole grouted up to surface
20			3 . 3 .0	, , , , , , , , , , , , , , , , , , , ,	, 3, 3
30		1			

PROJECT NUMBER W8Y25100

BORING NUMBER

MW-4B

SHEET 1 OF 3

SOIL BORING LOG

PROJECT: Potter Valley Water Supply Reliability Study LOCATION: Potter Valley, CA

ELEVATION: ~921 ft msl DRILLING CONTRACTOR: Gregg Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger; CME 850X

START: 10/30/2024				MENT USED: Hollow Stem Auger; CME 850X FINISH: 10/30/2024	LOGGER: M. Weir	
				SOIL DESCRIPTION	COMMENTS	
J	BELOW SURFACE (FT) INTERVAL (FT)			COLE DESCRIPTION	COMMITTATIO	-
	l -	. ,	BLOW COUNTS PER 6"	SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	DEPTH OF CASING, DRILLING RATE, TESTS, INSTRUMENTATION, SAMPLE ID, AND ORGANIC VAPOR READING (PI	ID)
-					10/30/24 1029 NOTE: sampling modified to 2 ft split spoon sample for every 5 ft of drilling (3-5, 8-10, etc.) First sample 3-5 ft	-
_ _ 5_	3-5	2	10-7-7- 10	Silty sand (SM), brown (7.5YR 5/4), dry, firm, fine to medium sand, no coarse clastics noted, trace clay, sticks/ tree roots noted at 4 ft bgs (organics).	10000111077	-
-					10/30/24 1057. Cont. same advancement method to TD	- -
- 10_	8-10	2	6-10-15- 22	Similar to above (SM) 8-9 ft bgs, grades to silty/clayey gravel with sand (GM-GC) at 9 ft, brown (7.5YR 4/4), dry to moist, loose, fine to coarse sand, subangular/subrounded gravel.		-
-					10/30/24 1110 Color shift	-
_ _ 15	13-15	2	15-15-14- 23	Similar to above (GM-GC), yellowish red (5YR 5/6), moist, firm, trace coarse sand, iron staining noted throughout.	40/20/24 4420 Clay is arrange with	-
-					10/30/24 1120 Clay increases with depth 18-20ft bgs.	-
	18-20	2	9-15-19- 28	Clayey sand (SC), dark reddish brown (5YR 3/4), moist, firm, grading into clay (CL/CH) at 19 ft bgs, dark gray (2.5Y 4/1), moist to dry, firm, medium to high plasticity.		
-					10/30/24 1133 High clay content continues, high plasticity clays increasing with depth.	-
_ _ 	23-25	2	4-6-8-9	Fat clay (CH), gray (2.5YR 5/1) to bluish gray (10B 5/1), moist, soft, high plasticity.		-
- -					10/30/24 1148 Clays remain in high volume	-
- - 30	28-30	2	5-7-12- 17	Similar to above (CH), bluish gray (10B 5/1) to reddish brown (5YR 4/4), moist, soft, becoming firm, high plasticity.		-

PROJECT NUMBER W8Y25100

BORING NUMBER

MW-4B

SHEET 2 OF 3

SOIL BORING LOG

PROJECT: Potter Valley Water Supply Reliability Study LOCATION: Potter Valley, CA

ELEVATION: ~921 ft msl DRILLING CONTRACTOR: Gregg Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger; CME 850X

START: 10/30/2024 LOGGER: M. Weir

DRILLING METHOD AND EQUIPM START: 10/30/2024				FINISH: 10/30/2024	LOGGER: M. Weir	
DEPTH B	ELOW SU	JRF <u>AC</u> E	E (FT)	SOIL DESCRIPTION	COMMENTS	
	INTERV	. ,	BLOW COUNTS PER 6"	SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	DEPTH OF CASING, DRILLING RATE, TESTS, INSTRUMENTATION, SAMPLE ID, AND ORGANIC VAPOR READING (PID)	
- - - 35 _ -	33-35	2	40-48-40- 50	Clayey/silty gravel with sand (GC-GM), brown (7.5YR 5/4), moist, firm, up to cobble sized clastics (subangular/subrounded), grades to well-graded sand with gravel (SW), fine to coarse sand with some gravel, trace silty/clayey material, loose sands.	10/30/24 1202 10/30/24 1220, heaving sands begin to cause issues with drilling/sampling	
- 40 -	38-40	2	8-9-9-29	Well-graded gravel with sand (GW) to well-graded sand (SW) at 40 ft, dark blueish gray (10BG 4/1), wet, loose, poorly sorted, trace cobbles.	10/30/24 1340, heaving sands continue	
- 45 _ -	43-45	2	12-17-10- 7	Similar to above (GW-SW), some clay (CH) noted at 45', wet, subangular/subrounded gravels.	10/30/24 1403	
- - 50 _ -	48-50	2	10-13-11-	Well-graded gravel with sand and clay (GW-GC) from 48 to 49 ft bgs, wet, loose sands, clays of medium to high plasticity, fining downward. Poorly graded sand with clay (SP-SC) from 49 to 50 ft bgs, dark bluish grey (10B 4/1), wet, loose, trace cobbles (subangular/subrounded).	10/30/24 1422	
- - 55	53-55	2	9-18-18- 18	Similar to above (GW), bluish gray (5B 5/1), wet, loose, subangular/subrounded gravels, trace up to cobble size, grading into well-graded sand with gravel (SW), wet, loose, similar color to above.	10/30/24 1444	
- - - 60	58-60	2	11-17-12- 5	Clayey gravel with sand (GC), bluish gray (10B 5/1), wet, loose gravel/sand, clay has medium plasticity (increasing with depth), cobbles (subrounded) noted. Color change at 60', dark bluish gray (10B 3/1) to bluish black (5B 2.5/1), wet, soft, wood noted (organics).		

PROJECT NUMBER
W8Y25100

BORING NUMBER

MW-4B

SHEET 3 OF 3

SOIL BORING LOG

PROJECT: Potter Valley Water Supply Reliability Study LOCATION: Potter Valley, CA

ELEVATION: ~921 ft msl DRILLING CONTRACTOR: Gregg Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger; CME 850X

START			2024	FINISH: 10/30/2024	LOGGER: M. Weir
DEPTH B	BELOW SURFACE (FT)			SOIL DESCRIPTION	COMMENTS
	INTERVAL (FT)				
		RECOVERY (FT)		SOIL NAME, USCS GROUP SYMBOL, COLOR,	DEPTH OF CASING, DRILLING RATE,
			BLOW	MOISTURE CONTENT, RELATIVE DENSITY,	TESTS, INSTRUMENTATION, SAMPLE
			COUNTS	CONSISTENCY, SOIL STRUCTURE,	ID, AND ORGANIC VAPOR READING (PID)
60			PER 6"	MINERALOGY.	10/20/24 1505 Lithology varios with
00					10/30/24 1505 Lithology varies with depth
_					ασμιτ
_					
-	63-65	2	12-15-13	Well-graded gravel with sand and clay (GW-GC), bluish grey	
	03-03		26	(10B 5/1), wet, loose gravel/sand, grades into clayey gravel	
_			20	(GC) with cobbles (subangular/subrounded), fat clay (CH)	
65				Clays at 65', wet, soft.	
					10/30/24 1526
-					
_					
_					
	68-70	2	4-8-14-	Silty gravel with sand (GM), bluish gray (5B 6/1), wet, loose,	
_			20	transitions at 69 ft bgs to lean/fat clay (CL-CH), bluish gray	
70_				(10B 5/1), firm to hard, medium to high plasticity.	_
					10/30/24 1549
_					
_					
_				(5) 5(4) (6)	
	73-75	2	2-18-29-	Clayey gravel (GC), bluish gray (5B 5/1), wet, soft clay, gaded	
_			47	to well-graded gravel with sand (GW) at 74', similar color to above, wet, sand/gravel (subangular/subrounded), cobble	
75_				noted at 75' (subrounded).	
''-				noted at 10 (capitaliaca).	10/30/24 1615 Low recovery for
_					final sample attempt, drilled past to
					target TD of 80 ft bgs.
_					
_	78-80	0.33	50 (4")		
_				No recovery ettermented to comple with anlit and an often refused	
00				No recovery, attempted to sample with split spoon after refusal	
80				called by driller. TOTAL DEPTH 80 FEET	
_				TOTAL DEL TITOUT ELT	
_					
_					
_					
85					_
_					
_					
-					
_	1				
90					

Attachment 3 Core Photographs









MW-1 Core Photographs







MW-2 Core Photographs





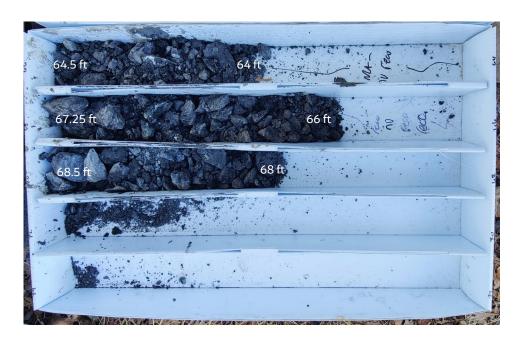




MW-3 Core Photographs







MW-3 Core Photographs













MW-4B Core Photographs

Attachment 4 Well Completion Diagrams



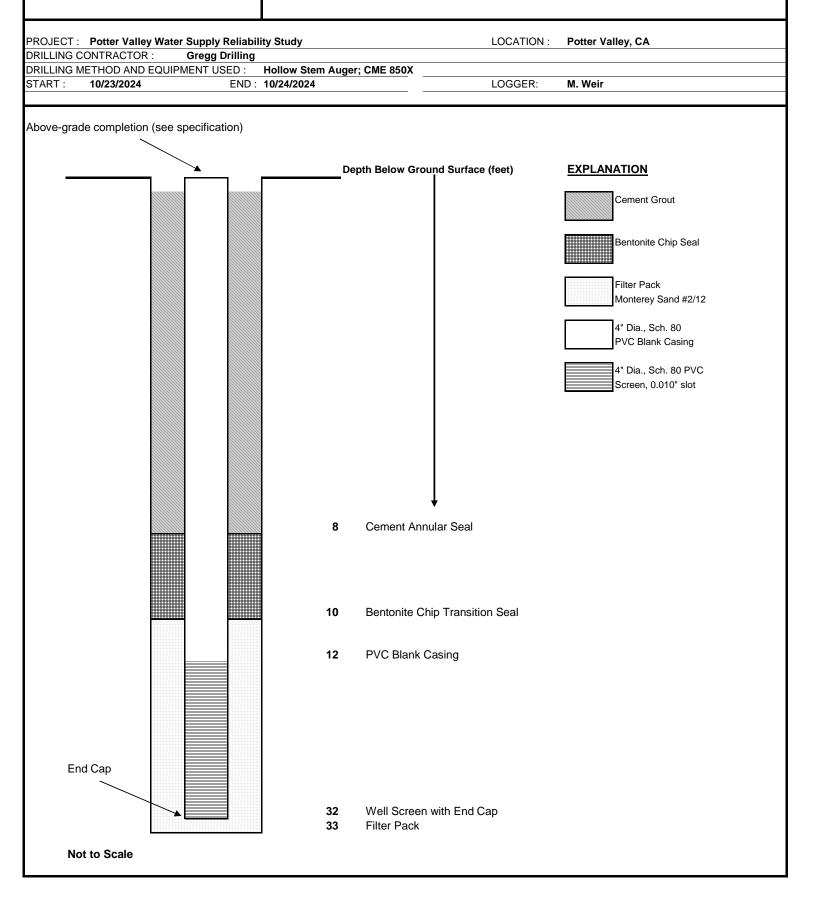
PROJECT NUMBER W8Y25100

WELL NUMBER **MW-1**

SHEET 1

1

WELL CONSTRUCTION DIAGRAM





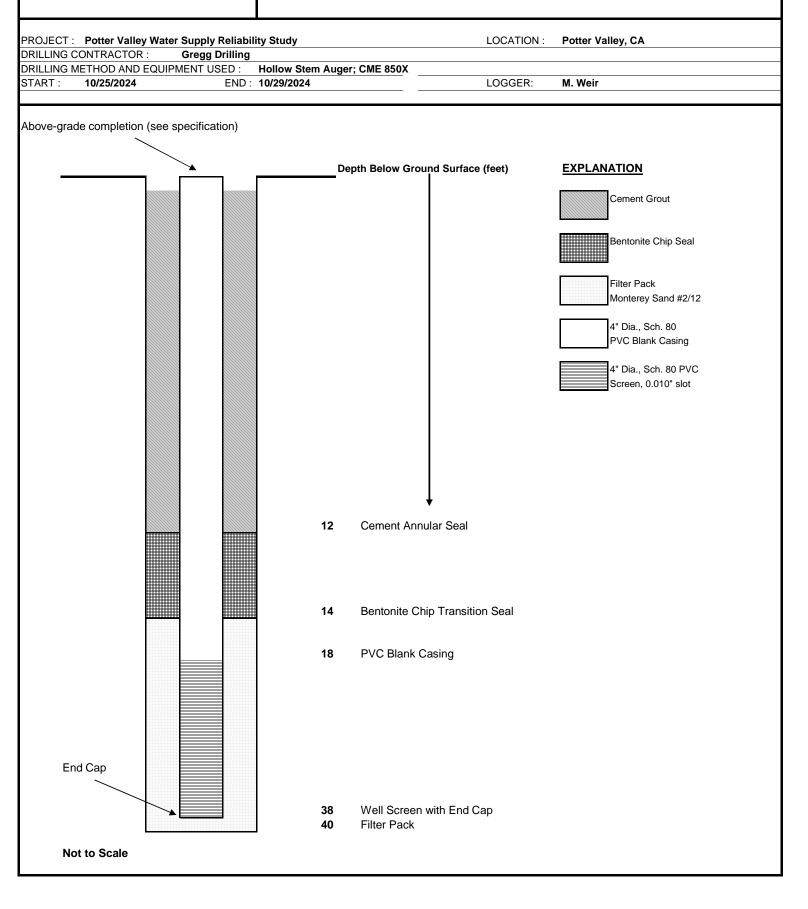
PROJECT NUMBER W8Y25100

WELL NUMBER **MW-3**

SHEET 1

1

WELL CONSTRUCTION DIAGRAM





PROJECT NUMBER
W8Y25100

MW-4B

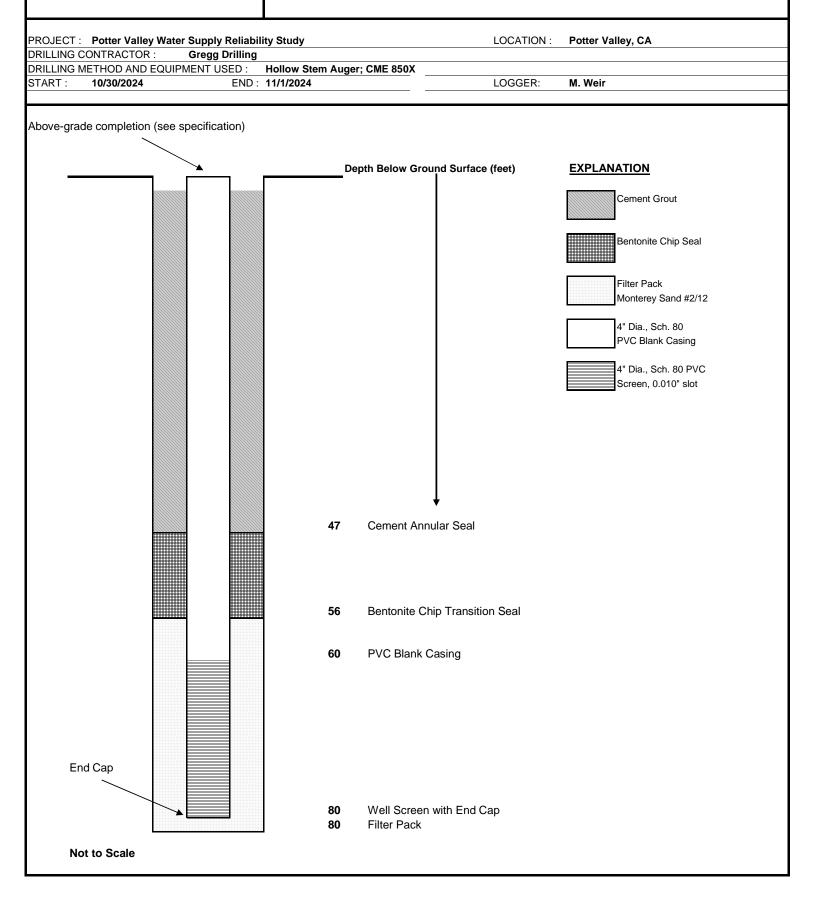
WELL NUMBER

SHEET 1

OF

1

WELL CONSTRUCTION DIAGRAM



Attachment 5 DWR Well Completion Reports

State of California

Well Completion Report Form DWR 188 Submitted 11/21/2024 WCR2024-012214

Owner's W	Vell Numb	per MW-1	Date Work Bega	n 10/23/2024	Date Work Ended 10/24/2024			
Local Perr	nit Agenc	y Environmental Health Division - Ukiah	Office					
Secondary	/ Permit A	agency	Permit Date 10/15/2024					
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\								
		must remain confidential pur	suant to Wat	er Code 13752	Planned Use and Activity			
_		COUNTY WATER AGENCY,						
Mailing A	ddress	404 Aviation Boulevard			Planned Use Monitoring			
City Sar	nta Rosa		State CA	Zip 94503	_			
			Well Lo	cation				
Address					APN 172-230-24			
					Township 17 N			
City —		Zip	_ ′ —	ndocino	Range 12 W			
Latitude .	39	20 43.98 N Longitude		25.9799_W	Section 12			
	Deg.	Min. Sec.	Deg. Min.	Sec.	Baseline Meridian Mount Diablo			
Dec. Lat.	39.345	55 Dec. Long	ı. <u>-123.14055</u>		Ground Surface Elevation			
Vertical D	atum	Horizontal Dat	tum WGS84		Elevation Accuracy			
Location A	Accuracy	Location Determina Method	tion		Elevation Determination Method			
		Borehole Information		Water L	_evel and Yield of Completed Well			
Orientatio	n Verti	cal Spe	ecify	Depth to first wate	r 18 (Feet below surface)			
Drilling Me		Auger Drilling Fluid None	· ——	Depth to Static				
	-			Water Level	(Feet) Date Measured			
Total Dep	th of Bori	ng 42 Feet		Estimated Yield*	(GPM) Test Type			
1		npleted Well 32 Feet		Test Length (Hours) Total Drawdown (feet) *May not be representative of a well's long term yield.				
,		<u> </u>		"May not be repre	sentative of a well's long term yield.			
		G	Seologic Log	- Free Form				
Depth f				Description				
	Feet to Feet							
0	2	2 Clayey gravel, brown, dry, firm, subangular/subgrounded gravel						
2	2 4 similar to above with coarse gravel. Large jasper nodules noted.							
4	4 6 similar to above with quartzite cobbles							
6	6 8 similar to above, brown, moist, gravels							
8	16	similar to above						
16	20	clayey gravel, transitioning to clay at 18'.	rown, wet, firm cla	y.weathered rock fra	agments			
20	20 24 clayey/silty gravel, some sands noted							
24	30	clayey/silty sand						
30	32	silty/clayey gravel with sand.						
32	40	weathered bedrock (sandstone)						

fractured sandstone, quartz, feldspar, subrounded grains

	Casings									
Casing #	Y I ' I (:asing IV		Casing Type	Material	Casings Specificatons	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size if any (inches)	Description
1	0	12	Blank	PVC	OD: 4.500 in. Thickness: 0.337 in.	0.337	4.5			
1	12	32	Screen	PVC	OD: 4.500 in. Thickness: 0.337 in.	0.337	4.5	Milled Slots	0.01	

	Annular Material									
Depth from Surface Feet to Feet		Fill	Fill Type Details	Filter Pack Size	Description					
0	8	Cement	Portland Cement/Neat Cement							
8	10	Bentonite	Other Bentonite		hydrated chips					
10	33	Filter Pack	8 x 20							
33	42	Other Fill	See description.		native soil					

Other Observations:

Borehole Specifications						
Depth from Surface Feet to Feet		Borehole Diameter (inches)				
0	33	10				
33	42	6				

	Certification Statement								
I, the under	I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief								
Name	me GREGG DRILLING LLC, Tim Boyd								
	Person, Firm or Corporation								
	2726 WALNUT AVE	SIGNAL HILL	CA	90755					
	Address	City	State	Zip					
Signed	electronic signature received	11/21/2024	1044456						
	C-57 Licensed Water Well Contractor	r Date Signed	C-57 Lice	ense Number					

Attachments
Permit, well diagram, boring log.pdf - Well Construction Diagram

DWR Use Only							
CSG#	State Well Number		Site Code	Loc	Local Well Number		
		N				w	
La	titude Deg/Min/Sec		Longitu	de Deg	/Min/Se	С	
TRS:							
APN:							
İ							

State of California

Well Completion Report Form DWR 188 Submitted 11/21/2024 WCR2024-012221

Owner's V	Well Numbe	er <u>MW-2</u>		Date Work Be	egan 10/24/2024		Date	Work Ended	10/24/2024
Local Per	mit Agency	/ Environm	ental Health Divisio	n - Ukiah Office	_				
Secondar	y Permit A	gency		Permit Nui	mber MC004482			Permit Date	10/15/2024
Well C	Owner (must rem	ain confident	ial pursuant to W	ater Code 1375	52)	Pla	nned Use	and Activity
-		COUNTY WA	TER AGENCY,			△	ctivity [Orill and Destro	у
Mailing A	ddress -	404 Aviation	Boulevard			₽	Planned Use	e Destructi	on
City Sa	City Santa Rosa State CA Zip 94503								
				Well L	ocation				
Address						APN	172-230	-24	
City			Zip	County I	Mendocino	Towns	hip 17	N	
Latitude	39	20		ongitude -123	8 19.752 W	Range			
	Deg.		Sec.	Deg. M	lin. Sec.	Sectio	n 12 ne Meridiar	Marriet Dial	-1-
Dec. Lat.		9	[Dec. Long123.13882			ne ivieridiar d Surface E		010
Vertical D	Datum		————— Horiz	contal Datum WGS84			ion Accurac		
Location	Accuracy			etermination				nation Method	
			Method						
	Borehole Information Water Level and Yield of Completed Well								pleted Well
Orientation Vertical Specify				Depth to first war	ter		(Feet be	elow surface)	
Drilling M	lethod A	uger	Drilling Flu	id None	Depth to Static Water Level		(Fee	t) Date Mea	eurad
					_ -	Estimated Yield* (GPM) Test Type			
	oth of Borin			Feet —	Test Length		— (Hou		
Total Dep	oth of Com	pleted Well		Feet —	*May not be repr	esentati	ve of a well	s long term yie	ld
				Geologic	Log - Lite				
Depth Surf Feet to	ace	Mat	terial Type	Material Color	Material Tex	ture		Material D	escription
0	2	Cla	iyey Gravel	Brown	Dry		soft		
2	4	Cla	iyey Gravel	Brown	Dry	Dry stiff			
4	8	Cla	yey Gravel	Brown	Soft	Soft moist			
8	16		iyey Gravel	Brown	W/Cobble				
16	18		yey Gravel	Brown	W/Sand				
18	20		yey Gravel	Brown		W/Sand			
20	20 24 Clayey Gravel Brown Coarse								
				Annular	r Material				
Depth f Surfa Feet to	ice	FIII		FIII Type Details	Fil	ter Pack	Size		Description
0	24	Cement	Portland Cement/	Neat Cement					

_			- 4		_	-	
1)6	t94	ru	cti	n	11)	۵ta	II C

Destruction Details:Destroyed by grouting with neat cement and trimmle pipe from the bottom to surface

Other Observations:

	В	orehole Specifications
Depth from Surface Feet to Feet		Borehole Diameter (inches)
0	24	6

	Certification Statement								
I, the under	I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief								
Name	Name GREGG DRILLING LLC, Tim Boyd								
	Person, Firm or Corporation								
	2726 WALNUT AVE	SIGNAL HILL	CA	90755					
	Address	City	State	Zip					
Signed	electronic signature received C-57 Licensed Water Well Contractor			944456 ense Number					

Attachments
Boring log.pdf - Geologic Log

DWR Use Only										
CSG#	State We	Site Code				Local Well Number				
			<u> </u>					•		
			N							w
La	titude Deç	g/Min/Sec			Longitu	de	Deg	/Min	/Sed	2
TRS:										
APN:										

State of California

Well Completion Report Form DWR 188 Submitted 11/21/2024 WCR2024-012228

Owner's We	ll Numb	nber MW-3 Date Work Began 10/25/2024 Date Work Ended 10/29/2024						
Local Permit	t Agenc	ncy Environmental Health Division - Ukiah Office						
Secondary F	Permit A	Agency Permit Number MC004482 Permit Date 10/15/2024						
M !! 0		-			N Discouling and Automatical			
	`	must remain confidential pur	suant to wat	er Code 13/52) Planned Use and Activity			
		COUNTY WATER AGENCY,			_			
Mailing Add	Iress	404 Aviation Boulevard			_ Planned Use Monitoring			
City Santa	a Rosa		State CA	Zip 95403				
			Well Loc	cation				
Address				,	APN 172-230-24			
City -		Zip	County Mer	 ndocino	Township 17 N			
Latitude	39	20 38.2092 N Longitude	-123 8		Range 12 W			
	Deg.	Min. Sec.	Deg. Min.		Section 12			
1	39.3439		- 3		Baseline Meridian Mount Diablo			
Vertical Dat		Horizontal Dat			Ground Surface Elevation			
Location Ac	_	Location Determina			Elevation Accuracy Elevation Determination Method			
Location Ac	curacy							
		Borehole Information		Water L	evel and Yield of Completed Well			
Orientation	Verti	cal Spe	cify	Depth to first water	(Feet below surface)			
Drilling Meth	hod A	Auger Drilling Fluid None	,	Depth to Static				
	_			Water Level	(Feet) Date Measured			
Total Depth	of Bori	ng 70 Feet		Estimated Yield* Test Length	(GPM) Test Type (Hours) Total Drawdown (feet)			
Total Depth	of Com	ppleted Well 38 Feet			sentative of a well's long term yield.			
					,			
	-	G	eologic Log	- Free Form				
Depth fro				Description				
Feet to F	eet			•				
0	2	clayey gravel						
2	4 silty clayey gravel with sand, strong brown, dry, stiff, up to cobble size coarse clasts							
4	6	similar to above, stiff, dry, gravel, fat clay at 6'						
6	15	similar to above,slight decrease in cobbles,						
15	26	clayey gravel, brown, wet, firm, med coars	e sand noted, trace	e cobbles				
26	28	clayey gravel, brown, wet, loose, grades to	clayey sand, stror	ng brown, moist, firm	, weathered rock fragments			
28	30	clayey/silty sand, reddish yellow,wet, firm,	trace gravel/cobble	es				
30	32	clayey sand grading into clayey gravel, str	ong brown,wet					
32	60	similar to above						
60	62	weathered bedrock with clay, bluish black fragments of blue schist/greenstone. laminated, brittle						

similar to above

70

					Casing	s				
Casing #		m Surface o Feet	Casing Type	Material	Casings Specificatons	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size if any (inches)	Description
1	0	18	Blank	PVC	OD: 4.500 in. Thickness: 0.337 in.	0.337	4.5			
1	18	38	Screen	PVC	OD: 4,500 in. Thickness: 0,337 in.	0.337	4.5	Milled Slots	0.01	

	Annular Material								
Sur	Depth from Surface Fill Feet to Feet		Fill Type Details	Filter Pack Size	Description				
0	12	Cement	Portland Cement/Neat Cement						
12	14	Bentonite	Other Bentonite		hydrated chips				
14	40	Filter Pack	8 x 20						
40	70	Other Fill	See description.		native soil				

Other Observations:

l	Borehole Specifications					
	Depth from Surface Feet to Feet		Borehole Diameter (inches)			
	0	40	10			
I	40	70	6			

Certification Statement							
I, the under	signed, certify that this report is complete and	accurate to the best of my	y know l edge a	and belief			
Name	e GREGG DRILLING LLC, Tim Boyd						
	Person, Firm or Corporation						
	2726 WALNUT AVE	SIGNAL HILL	CA	90755			
	Address	City	State	Zip			
Signed	electronic signature received	11/21/2024	10	44456			
	C-57 Licensed Water Well Contractor	r Date Signed	C-57 Lice	ense Number			

Attachments
Well diagram and boring log.pdf - Other

DWR Use Only								
CSG#	State Well Number	Site Code			Local Well Number			
		N						w
La	titude Deg/Min/Sec			Longitu	ıde	Deg	/Min/Se	ec
TRS:								
APN:								

State of California

Well Completion Report Form DWR 188 Submitted 11/21/2024 WCR2024-012232

Date Work Began 11/01/2024

Date Work Ended 11/01/2024

Local Permit Ager	cy Environm	nental Health Division - Ukiah	ı Office				
Secondary Permit	Agency	Agency Permit Number MC004481 Permit Date 10/15/2024					
Well Owner	(must rem	ain confidential pur	suant to Wate	er Code 13752)	Plann	ed Use and Activity	
Name SONOM	IA COUNTY WA	ATER AGENCY,			Activity Drill	and Destroy	
Mailing Address	404 Aviation	Boulevard			Planned Use	Destruction	
					.		
City Santa Rosa	a 		State CA	Zip 94503			
			Well Loc	ation			
Address				Д	NPN 175-190-36		
City ——		Zip	County Men	docino T	ownship 17 N		
Latitude 39	18	4.6187 N Longitude			Range 11 W		
Deg.		Sec.	Deg. Min.	Sec	Section 29		
Dec. Lat. 39.30		Dec. Long	9	В	Baseline Meridian	Mount Diablo	
Vertical Datum	1200	Horizontal Da			Ground Surface Elev	ation	
Location Accurac	<u> </u>	Location Determina			Elevation Accuracy Elevation Determinat	ion Method	
Location Accurac		Method			lovation Botomina		
	Boreho	ole Information		Water Le	evel and Yield	of Completed Well	
Orientation Ver	tical	Spe	ecify	Depth to first water		(Feet below surface)	
Drilling Method	Auger	Drilling Fluid Non	· ——	Depth to Static		_	
-	7.030.			Water Level	(Feet)	Date Measured	
Total Depth of Bo	ring 30	Feet		Estimated Yield*	(GPM)	Test Type	
Total Depth of Co	mpleted Well	Feet	:	Test Length *May not be represe	(Hours)	Total Drawdown (feet)	
					situative of a well 3 ic	ng term yield.	
			Geologic Log	- Free Form			
Depth from Surface				Description			
Feet to Feet				Description			
0 15	no logging so	pil					
15 16	clayey sand,	strong brown, dry, firm, some	e clay noted, low pla	sticity			
16 20	similar to abo	ove. dark gray, dry, firm					
20 22	fat clay startir	ng at 20.5 ft bgs, dark bluish	gray, moist, soft, hig	nh plasticity			
22 30	similar to abo	ove, color varies from bluish ç	ray to yellowish bro	wn, moist, soft to firm	ı		
			Annular M	aterial			
Depth from Surface Feet to Feet	Fill	Fill Typ	e Details	Filter	Pack Size	Description	
0 30	Cement	Portland Cement/Neat Cer	nent				
Destruction D	etaile:						

Destroy by trimmie grouting with neat cement from bottom to surface

Owner's Well Number

MW-4A

Other Observations:

	Borehole Specifications							
Depth from Surface Feet to Feet		Borehole Diameter (inches)						
0	30	6						

Certification Statement							
I, the under	signed, certify that this report is complete and	accurate to the best of m	y knowledge a	and belief			
Name	ame GREGG DRILLING LLC, Tim Boyd						
	Person, Firm or Corporation						
	2726 WALNUT AVE	SIGNAL HILL	CA	90755			
	Address	City	State	Zip			
Signed	electronic signature received C-57 Licensed Water Well Contractor		1044456 C-57 License Number				

Attachments
Soil boring log.pdf - Geologic Log

DWR Use Only											
CSG#	State We	II Number		Site	Local Well Number						
			N							w	
Lat	titude Deg	g/Min/Sec			Longitu	de	Deg	Min.	/Se	С	
TRS:											
APN:											

State of California

Well Completion Report Form DWR 188 Submitted 11/21/2024 WCR2024-012234

Owner's Well Num	ber MW-4B	Date Work Began 10	/30/2024	Date Work Ended	11/01/2024									
Local Permit Agen	cy Environmental Health Division - Ukiah	Office												
Secondary Permit	Agency	Permit Number MC	0004481	Permit Date	10/15/2024									
Well Owner	(must remain confidential pur	suant to Water Co	de 13752)	Planned Use a	and Activity									
Name SONOM	A COUNTY WATER AGENCY,		Ac	tivity New Well										
Mailing Address	404 Aviation Boulevard		_{Pli}	anned Use Monitorin	a									
														
City Santa Rosa	ty Santa Rosa State CA Zip 94503													
Well Location														
Address			APN	175-190-36										
City	Zip	County Mendocino	Townsh	ip <u>17 N</u>										
Latitude 39	18 4.5287 N Longitude	-123 6 9	.774 W Range	11 W										
Deg.			Section	29	_									
Dec. Lat. 39.30		3	Baseline	e Meridian Mount Diab	olo									
Vertical Datum	Horizontal Date			Surface Elevation										
_				n Accuracy n Determination Method										
Location Accuracy	Method			in Determination Wethou										
	Borehole Information		Water Level	and Yield of Com	pleted Well									
					i									
Orientation Ver	tical Spe	cify Depth	to first water	(Feet be	low surface)									
		Depth	to first water to Static	(Feet be	low surface)									
	Auger Drilling Fluid None	Depth Water	to Static	(Feet) Date Mea	sured									
	Auger Drilling Fluid None	Depth Water	to Static Level ated Yield*	(Feet) Date Mea	sured									
Drilling Method Total Depth of Bor	Auger Drilling Fluid None	Depth Water Estim	to Static Level ated Yield* Length	(Feet) Date Mea (GPM) Test Type (Hours) Total Draw	sured(feet)									
Drilling Method	Auger Drilling Fluid None	Depth Water Estim	to Static Level ated Yield* Length	(Feet) Date Mea	sured(feet)									
Drilling Method Total Depth of Bor	Auger Drilling Fluid None ring 80 Feet mpleted Well 80 Feet	Depth Water Estim	to Static Level ated Yield* Length not be representative	(Feet) Date Mea (GPM) Test Type (Hours) Total Draw	sured(feet)									
Drilling Method Total Depth of Bor	Auger Drilling Fluid None ring 80 Feet mpleted Well 80 Feet	Depth Water Estimates 1 *May	to Static Level ated Yield* Length not be representative	(Feet) Date Mea (GPM) Test Type (Hours) Total Draw	sured(feet)									
Drilling Method Total Depth of Bor Total Depth of Cor Depth from Surface Feet to Feet	Auger Drilling Fluid None ring 80 Feet mpleted Well 80 Feet	Depth Water Estim Test I *May	ated Yield* Length not be representative	(Feet) Date Mea (GPM) Test Type (Hours) Total Draw	sured(feet)									
Drilling Method Total Depth of Bor Total Depth of Cor Depth from Surface	Auger Drilling Fluid None ring 80 Feet mpleted Well 80 Feet	Depth Water Estim Test I *May	ated Yield* Length not be representative	(Feet) Date Mea (GPM) Test Type (Hours) Total Draw	sured(feet)									
Drilling Method Total Depth of Bor Total Depth of Cor Depth from Surface Feet to Feet 0 5	Auger Drilling Fluid None ring 80 Feet mpleted Well 80 Feet silty sand, brown, dry, firm, fine to medium	Depth Water Estim Test I *May	ated Yield* Length not be representative	(Feet) Date Mea (GPM) Test Type (Hours) Total Draw	sured(feet)									
Drilling Method Total Depth of Bor Total Depth of Cor Depth from Surface Feet to Feet 0 5 5 15	Auger Drilling Fluid None ing 80 Feet mpleted Well 80 Feet silty sand, brown, dry, firm, fine to medium similar to above	Depth Water Estimates I *May Geologic Log - Free Description and Second	ated Yield* Length not be representative	(Feet) Date Mea (GPM) Test Type (Hours) Total Draw	sured(feet)									
Drilling Method Total Depth of Bor Total Depth of Cor Depth from Surface Feet to Feet 0 5 5 15 15 20	Auger Drilling Fluid None ing 80 Feet mpleted Well 80 Feet silty sand, brown, dry, firm, fine to medium similar to above clayey sand, dark reddish brown, moist, fire	Depth Water Estimates I *May Geologic Log - Free Description and Second	ated Yield* Length not be representative	(Feet) Date Mea (GPM) Test Type (Hours) Total Draw	sured(feet)									
Drilling Method Total Depth of Bor Total Depth of Cor Depth from Surface Feet to Feet 0 5 5 15 15 20 20 25	Auger Drilling Fluid None ing 80 Feet mpleted Well 80 Feet silty sand, brown, dry, firm, fine to medium similar to above clayey sand, dark reddish brown, moist, fir fat clay, gray to bluish gray, moist, soft, high	Depth Water Estimates I was a sand Secologic Log - Free Description of the property of the pro	a to Static r Level ated Yield* Length not be representative e Form cription	(Feet) Date Mea (GPM) Test Type (Hours) Total Drave of a well's long term yiel	sured(feet)									
Drilling Method Total Depth of Bor Total Depth of Cor Depth from Surface Feet to Feet 0 5 5 15 15 20 20 25 25 33	Auger Drilling Fluid None ing 80 Feet mpleted Well 80 Feet silty sand, brown, dry, firm, fine to medium similar to above clayey sand, dark reddish brown, moist, fir fat clay, gray to bluish gray, moist, soft, hig same as above	Depth Water Estim Test I *May Geologic Log - Free Description m grading into clay gh plasticity rm, up to cobble sized class	a to Static r Level ated Yield* Length not be representative e Form cription	(Feet) Date Mea (GPM) Test Type (Hours) Total Drave of a well's long term yiel	sured(feet)									
Drilling Method	Auger Drilling Fluid None ing 80 Feet mpleted Well 80 Feet silty sand, brown, dry, firm, fine to medium similar to above clayey sand, dark reddish brown, moist, fir fat clay, gray to bluish gray, moist, soft, hig same as above clay/silty gravel with sand, brown, moist, fir	Depth Water Estimates I was a second control of the	a to Static r Level ated Yield* Length not be representative e Form cription	(Feet) Date Mea (GPM) Test Type (Hours) Total Drave of a well's long term yiel	sured(feet)									
Drilling Method	Auger Drilling Fluid None ing 80 Feet mpleted Well 80 Feet silty sand, brown, dry, firm, fine to medium similar to above clayey sand, dark reddish brown, moist, fir fat clay, gray to bluish gray, moist, soft, hig same as above clay/silty gravel with sand, brown, moist, fir well graded gravel with sand, trace of coble	Depth Water Estimates I was a second control of the	a to Static r Level ated Yield* Length not be representative e Form cription	(Feet) Date Mea (GPM) Test Type (Hours) Total Drave of a well's long term yiel	sured(feet)									
Drilling Method Total Depth of Bornous Total Depth of Constitution Depth from Surface Feet to Feet 0	silty sand, brown, dry, firm, fine to medium similar to above clayey sand, dark reddish brown, moist, fir fat clay, gray to bluish gray, moist, soft, hig same as above clay/silty gravel with sand, brown, moist, fir well graded gravel with sand, trace of coble well graded gravel with sand, wet, loose so similar to above	Depth Water Estimates I was a sand Estimates	ated Yield* Length not be representative Form cription stics, grades to well g	(Feet) Date Mea (GPM) Test Type (Hours) Total Drave of a well's long term yiel	sured(feet) d.									
Drilling Method	Auger Drilling Fluid None ing 80 Feet mpleted Well 80 Feet silty sand, brown, dry, firm, fine to medium similar to above clayey sand, dark reddish brown, moist, fir fat clay, gray to bluish gray, moist, soft, hig same as above clay/silty gravel with sand, brown, moist, fi well graded gravel with sand, trace of coble well graded gravel with sand, wet, loose sa	Depth Water Estimates I was a sand Estimates	ated Yield* Length not be representative Form cription stics, grades to well g	(Feet) Date Mea (GPM) Test Type (Hours) Total Drave of a well's long term yiel	sured(feet) d.									

clayey gravel, bluish gray, wet, soft clay

	Casings											
Casing #			Casing Type	Material Casings Specifications		Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size if any (inches)	Description		
1	0	60	Blank	PVC	OD: 4.500 in. Thickness: 0.337 in.	0.337	4.5					
1	60	80	Screen	PVC	OD: 4,500 in. Thickness: 0,337 in.	0.337	4.5	Milled Slots	0.01			

Annular Material									
Sur	Depth from Surface Fill Feet to Feet		Fill Type Details	Filter Pack Size	Description				
0	47	Cement	Portland Cement/Neat Cement						
47	56	Bentonite	Other Bentonite		hydrated chips				
56	80	Filter Pack	8 x 20						

Other Observations:

	В	orehole Specifications	
Depth Surf Feet to	ace	Borehole Diameter (inches)	
0	80	10	

	Certification	Statement									
I, the under	undersigned, certify that this report is complete and accurate to the best of my knowledge and belief										
Name	GREGG DRIL	LING LLC, Tim Bo	yd								
	Person, Firm or Corporation										
	2726 WALNUT AVE	SIGNAL HILL	CA	90755							
	Address	City	State	Zip							
Signed	electronic signature received C-57 Licensed Water Well Contracto	11/21/2024 r Date Signed		944456 ense Number							

Attachments
well diagram and boring log.pdf - Other
well diagram and boring log.pdf - Other

			D۱	۷R۱	Js	se Only						
П	CSG#	State Wo	ell Number			Site Code	Local Well Number					
إ							_					
				N							w	
	La	titude De	g/Min/Sec			Longitu	de	Deg	Min	/Se	С	
	TRS:											
	APN:											
L												

Attachment 6 Well Development Records

	GREGG		•		MONITO	RING WEL	L DEVELO	PMENT LC)G		Page of	<u> </u>
] I All measuremer	nts taken from	: Top of	Casing F	Protective Cas	ing 🔲 Grou	nd Level	S	ample ID		
	Date	per Mu 11-11	-24		Borehole Dia		20	N	Oty. of Drilling Fluid Lost Minimum Gal. to be Purged Development Method Scrole, Ba.			
	Client Project	Saco	b5	25	Measured D	epth (pre-deve epth (post-dev Level (ft.)	elopment)		Purging Equipment 3'55 Baciler Water Level Equipment 501: h151			
	Job Numb Installation Well Diam		- 1 '			ter Column (ft.) Volume (gal.) _ Vol. (gal.)	9.	т	H/EC Meter urbidity Meter other	Horiba 6	<u>1-20</u>	
-	- -		· · · · · · · · · · · · · · · · · · ·		Field P	arameters Me	asured					
	Time Amount Purged pH EC				Turbidity D.O. Temperature SAI				GPM W.L.	С	Comments	Field Tech.
	11.00	- P	raslin	r S			9	5-			25	
	11:15	- Stop	Bai	ins,	Bail	86	allou	<u>S</u>	リレニ	21.50		
±	11:15	- 50	rgin	5 1	111 U	1e11-		876 1				,
	11:45	- 5 to	PS	urs?	ns.	<u> </u>	U L=	21.0	U		West 1	
1,81	11.9b	5	Ban	J. C.	步建							
	11.52	- 54	op (bay.	3/	Ba.	10 Gal	lons	WLZ	31.91	γ,	<i>.</i>
	16.75	18/23	$\frac{1}{2}$	1200 L	1.	HT	5/1	<u>1 </u>		25,40	1-7 27 18	
	11 95	5/23	7.44	0.62	7999	4.62	18.28		3581	M \ W	17.15 19.16	
è	1115	5/33	7.24	0.61	7999	3.27	18-61			\ \(\lambda \tilde{\ti}	276-60 27036	,
	1.25	3/28	7.21	0-58	i :	3.35	19.39		1	101L	7 32.80	5
		1		· · · · · · ·		FIELD PARA	METER MEAS	UREMENTS	· · · · · · · · ·			<u> </u>
	1:25	1- We	U	60+	br	y -	Let	wel	Lto	Reco	ver	

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MONITORING WELL DEVELOPMENT LOG

Page of 3

		l All me	easuremer	nts taken from	: Top of	Casing F	Protective Cas	ing 🔲 Grou	ind Level			mple ID	-		
	Well Numb	er	M	W !	<u></u>	Borehole Dia	meter	10"			·	nimum Gal. to be Purged			
	Date	\overline{L}	1-12	ك٢		Screen Length						Development Method Surge Bal			
	Time Start:	C	100	End: 93	45	Measured Depth (pre-development) 3 4 67						E PUMP			
	Client		Saco	1 6			epth (post-dev		340	ナン	Pu	rging Equipment 3"5.5. Ba	iler		
	Project_			~		-	Level (ft.)			- 1		ater Level Equipment Soline	51		
	Job Numb	er	. "	-			ter Column (ft.)			7		/EC Meter Horiba 4-	ر ت		
	Installation	Date	-	_			/olume (gal.) _		9.15	- · · · · ·	* .	rbidity Meter	<u>, </u>		
	Well Diame	eter		4"			Vol. (gal.)		*			her			
				•			,,								
		Δr	nount			Field P	arameters Me	asured		,		7.70	,		
	Time	Pı	urged gal.)	рН	MS/CM /EC	Turbidity	D,O.	Temperature	SAL.	GPM	W.L.	Comments	Field Tech.		
Z	:00	-	W	L= 7	0.8	0	TD	= 34	077						
i,	:15	<u> </u>	5+a	rt p	umpi	16 A	T 0	5 60	Ŋ	م) ا	14	- 20.75			
0	: 25	5/	43	エボト	0.41	431	3.70	16.52		150	ממני	WL721.95			
2	35	5	148	7.59	6.40	7999	3.69	17.69	-		/ *	W L> 72.30			
6	:45	5	153	7.46	0.39	7949	3.64	17.70				WL2 22.50			
3	:55	5	158	7:32	0.38	7999	3.62	17.76				WL 22.51	3		
0	>0 5	5)	163	720	0:3%	7999		17.88				しレン 22.65	•		
9	115	5/	168	7.19	0.37	7999	3.42	18.55				WL- 22.70			
ì.	.25	5	/73	7.15	0.37	7999	3.32	19.02				WL7 22.70)		
	35	5	178	7.09	0.36	7949	· 1	18.63	_			W.L-, 22,72			
1.	45	5/	183	7.08	6.36	985	3.19	19.26				WL= 22.78			
-		- 1				FINAL	FIELD PARA	METER MEAS	SUREMENTS	0)	1				

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MONITORING WELL DEVELOPMENT LOG

Page of _____

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	l All measuremen	its taken from:	Top of	Casing 🔲 P	rotective Cas	ing 🔲 Grou	nd Level	S	ample ID	
Client Project		End: 11	05	Measured De Measured De Static Water I Standing Wat One Casing V	thepth (pre-deve epth (post-dev evel (ft.) ter Column (ft. /olume (gal.) _	elopment)	34.6 34.7 3.80 3.87 9.15	M	ty. of Drilling Fluid Lost	ailer St 20
				Field Pr	arameters Me	easured		· · · · · · · · · · · · · · · · · · ·		<u> </u>
Time	Amount Purged (gal.)	рН	m>/cm		D.O.	Temperature	SAL.	GPM W.L.	Comments	Field Tech.
155	3/88	7.14	0.35	7999	3.16	18.74		.50,0M	WL: 22.72	
01.05	5/93	7.13	0.35	975	3.15	18.83		0 5601	n W- 22.75	
1115	5/98	7.101	0.35	881	3.16	1894		.5901	n WL 22.75	,
21,25	5/103	7.16	0.35	770	3.14	1896	******		WLV 2275	
9:3 <i>5</i>	5/108	7.20	0.35	615	3.15	18.91			WV2 22.75	
9:45	5/1/3	7.72	0.35	571	3.21	19.18			WU: 22-75	-
1:55	5/118	7.25	135	465	3.22	19.19		1	W L 12275	
1:05	5/123	7.26	134	407	3-19	19.21		- \	WLL 72.75	
							, , , ,			
							9			<u> </u>

FINAL FIELD PARAMETER MEASUREMENTS

•	GREGG			······································	MONITO	RING WEL	L DEVELO	PMENT LO	G	1	Page /	of 3	~.·
	Well Numb Date Time Start: Client Project Job Numb	All measurement of LI-I 2',>5 Jaco Date	/2 1-24 End: 31 hS	(O	Casing P Borehole Dia Screen Lengt Measured De Measured De Static Water L Standing Wat	rotective Cas metert thepth (pre-deve	ing Ground Groun	6.37 8.57 05	S: Q: M D P V pl Ti	linimum Gal. evelopment l urging Equip /ater Level Ec H/EC Meter_ urbidity Mete	Fluid Lost to be Purged The Fluid Lost The Purged The Fluid Lost T	· Bail linist	<u> </u>
7	Well Diam	eter	7		One Annulus	Vol. (gal.)			O	ther	*	-9	<u>-</u>
s	<u> </u>	1	F		Field D	arameters Me	Seurad		<u> </u>	- <u> </u>			
	Time	Amount Purged (gal.)	рН	EC	Turbidity	D.O.	Temperature	SAL.	GPM W.L.		Comments		Field Tech.
	2:35	- Ba	illa	5 -				*	· · · · · · · · · · · · · · · · · · ·		ę.		
	2:40	-5top	Bail		a.1 8	3 Galla	mS	lise 2	330	40			
	3 :40	- start	Su.						,		• 136		
	3:00	-Stop	م ا		Ster	+ Bo	artin	5	- WL	-19	-90		
	310	- 3top	Bai		Bail	22	` .		1	126	-2 36.	70	
	TAN TAN			7									•
	a	-		44.7					199		>		
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w.													
7							*						
<u>)</u>		1/1/ / ** * * * * * * * * * * * * * * * * *			FINAL	FIELD PARA	METER MEA	SUREMENTS		<u> </u>		A Park	
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MONITORING WELL DEVELOPMENT LOG

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20.75

/	[]			40.0					1	Page of			
Well Numb Date Time Start:	per	7h	_	Top of	Borehole Dia Screen Leng Measured De	thepth (pre-deve	lopment)	nd Level	Q M	Sample ID Qty. of Drilling Fluid Lost Minimum Gal. to be Purged Development Method Purging Equipment 3'5.5. Boar Levelopment			
Client Project Job Numbe Installation Well Diame	er		1)		Static Water Level (ft.) Standing Water Column (ft.) One Casing Volume (gal.) One Annulus Vol. (gal.) Water Level Equipment So PH/EC Meter Tori Do Turbidity Meter 1 Other						<u> </u>		
	Amo	ount			Field Pa	arameters Me I	easured				F:_(_		
Time	Amount Time Purged (gal.)		рН	ÈC	Turbidity D.O.		Temperature SAL.		GPM W.L.	Comments	Field Tech.		
1-30		- []	the	- 19.	90	To	7	0.5	2				
1:40		Sta	p fr	MAN	V &	AT	1.90	M		WL2 19.95			
:50	10/	40	7.46	0.41	732	3.88	19.04	. .	1 apm	WL7 20.80			
1.55	5/	45	7.39	0.34	529	7.85	18.50	***************************************	1000	WL= 20.80			
2:05	10/	55	7.40	6.28	193	3.45	18.76		4"	WL1 20.80			
1.15	10/	65	6.62	6.28	122	3.07	16.44	J		NACT 70.75			
1:25	lo /	75	6.45	6.77	94	2.36	16.33	·		WL2 20.75			
1:35	10/	185	6.24	0.27	70	2.53	18.30)		WL= 20.75			
2:45	10%	95	6.23	19.27	5104	368	16.11			WL7 70-75			
2:55	10/	105	6:40	0.27	36	2.92	1793		*	WL2 20.77			

FINAL FIELD PARAMETER MEASUREMENTS

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MONITORING WELL DEVELOPMENT LOG

Page <u>3</u> of <u>3</u>

•	I All measuremer	nts taken from	Top of	Casing 🔲 F	Protective Cas	ina 🗀 Grou	nd Level	;	Sample ID			
Well Numb Date Time Start Client Project Job Numb	er	W 3 2-24 End: 1: >bs	555	Borehole Diameter Screen Length Measured Depth (pre-development) Measured Depth (post-development) Static Water Level (ft.) Standing Water Column (ft.) One Casing Volume (gal.) One Annulus Vol. (gal.)					Oty. of Drilling Fluid Lost			Ze ZO
	<u> </u>	ļ		Field P	arameters Me	easured	***		1			
Time	Amount Purged (gal.)	рН	EC	Turbidity	D.O.	Temperature	SAL.	GPM W.L.		Commer	nts	Field Tech.
115	10/125	7.14	0.76	77	2-78	18.12	·	1.000	h	14; 2	0,75	
:25	10/135	7.01	0.76	15.6	2.77	18.22	-		l n	L	20.75	,
35	10/145	7.02	0.25	11.9	2.76	18.19			h	レンマ	0.75	
:45	10/155	7.10	0.25	8	2.74	18.09			h	レンで	0.75	
55	10/165	7.08	0.25	5	2.72	16.10	<u></u>	V	W	L= 2	9.75	
				•								
-												
			-									
				FINAL	FIELD PARA	METER MEAS	UREMENTS					
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	All measuremer	nts taken from:	☐ Top of	Casing		• -	and Level		Sample ID	· • • • • • • • • • • • • • • • • • • •
Well Numb		**		Borehole Dia	meter	10"			Minimum Gal. to be Purged	
Date			- 9	Screen Leng	th	·			Development Method Surge,	Bal
	3.00	End: 41	00			elopment)	_		Purging Equipment 3 5.5.13	
Client	747				epth (post-dev _evel (ft.)	/elopment)	<u>80. 20</u>			•
	er		 			60.00	1		Vater Level Equipment 2016 H/EC Meter Honba	
	Date 10/3			One Casing \					urbidity Meter	1
Well Diame	ter 4"						Territoria Territoria		Other	
a ,	Amount			Field P	arameters M	easured		- · · · · · · · · · · · · · · · · · · ·		
Time	Purged (gal.)	рН	EC	Turbidity	D.O.	Temperature	SAL. *	GEM W.L.	Comments	Field Tech.
3100	Bai	line							SOFT GOT	tom
3210	-Sto	0 75	citins	Bai	12	69 110 h	5	WL=	34.10	
3 115-	500	ging			, a h				9	
3:35	- 5 to	() "	ins	1 5 to	-t 0	Jaili 1	19 -		W.L. 2750)
4.02	- 3 to	o Ba	152	Bail	36 Gul	سا عيوا	L = 4	30:50	7 D = 81.	97
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FINAL FIELD PARAMETER MEASUREMENTS

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MONITORING WELL DEVELOPMENT LOG

Page 2 of 4

All measurements taken from: Top of	Casing
Well Number MW - 4B	Borehole Diameter 10 1
Date 11-13-24	Screen Length 70
Time Start: 7 1/30 End: 10\20	Measured Depth (pre-development) 80.17
Client Sacob S	Measured Depth (post-development)
Project	Static Water Level (ft.) 20.18
Job Number	Standing Water Column (ft.) 66-09
Installation Date	One Casing Volume (gal.) 39.6
Well Diameter μ	One Annúlus Vol. (gal.)
$oldsymbol{I}_{ij}$, which is the $oldsymbol{I}_{ij}$	

Sample ID
Qty. of Drilling Fluid Lost
Minimum Gal. to be Purged
Development Method Surge, Ba.)
PUMP
Purging Equipment 3" S.S. Bailer
Water Level Equipment Solinist
PHYEC Meter Horiba 4-20
Turbidity Meter
Other

	_			Field P	arameters Me	asured		1		
Time	Amount Purged (gal.)	pH	EC	Turbidity	D.O.	Temperature	SAL.	GPM W.L.	Comments	Field Tech.
7:30	 -	\~ L-	7	0.2	5			4		
7:50	5+0	+ 0	undi	VE AT	191	2M	· 6	L= 7	0.17	
8:00	10/58	7.60	0.49	7999	2.51	15.44		1900	WF-31.36	
8:10	10/68	7.21	0.48	7999	1.67	16.20		,	6-41.86	•
9:20	5/73	731	6.48	7999	2.01	16.32	-	·5500	n WL = 43.64	
8:40	6/83	7.32	0.46	7999	1.47	16-36	/ -		WK 46.40	
9,00	6/93	7.22	0.44	7969	1.52	16.60	· ·	0.5gpm	MW-48.60	
9:20	60/103	7.30	0.44	7999	136	16.68		好好	WL - 49.80	
9,40	10/113	703	0,44	774	1.3	17.09		15 5 DM	ww 50.90	
10:00	10/123	7-20	0.42	569	1.05	· · · · · ·		05 50M		
10120	10/133	6.95	0.42	448	1006	16.85		650m	WW 53.15	<u> </u>

FINAL FIELD PARAMETER MEASUREMENTS

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MONITORING WELL DEVELOPMENT LOG

Page of	3 of 4
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	l All me	easuremer	nts taken from:	: Top of	Casino □ P	rotective Cas	ina □ Grou	nd Level	:	Sample ID			
Client Project Job Numb Installation	: <u>l ()</u> er	Jaco	_ 4r 3-27 End: 1: 2bs	<u>10</u>	Borehole Diameter					Oty. of Drilling Fluid Lost Minimum Gal. to be Purged Development Method Surge, Bal Purging Equipment Water Level Equipment PH/EC Meter Turbidity Meter Other			
Field Parameters Measured													
Amount Purged (gal.)		urged	рН	EC	Turbidity D.O.	Temperature	SAL. GP	GPM W.L.	Comments	Field Tech.			
10:40	5/	138	7.20	0.42	343	1.56	16.96		· 25 gp/	n W- 49.25	,		
11:00	5	1143	7.201	1.41	207	1.35	16.69	•	.25 apr	WL- 45.20			
11:10	2.5	1455	7.04	9.41	153	1.25	17.49	ř —	1250pm	, WL- 43.85	, >		
11:20	2.5	/148	7.15	6.42	110	1.31	17:30		125 gpm	1 .			
1:30	2.5	150.5	702	0.42	107	1.28	17.22		\	WC- 425	<u> </u>		
11:40	25	153	7.15	6.41	99.5	1.03	17.23	~		WL2 42.2	<u> </u>		
11:50	2.5	15505	7.10	0.42	86	1.05	17.32	-4	1	WL- 41.8	0		
2:10	5	160,5	7.27	0.41	77.7	0000	17.41			WL= 41.40			
V.30	10	170.5	7.05	0.41	79.5	0.95	17.61		·5001	P WL= 45.25	>		
2:50	10	1805	7.19	0.40	67-6	0.98	17.39		05GP	p WL= 48.30)		
10	10/	190.5	7.18	041	48	1.02	17.42		15501	n WL- 50.90	7		
	. 1	FINAL FIELD PARAMETER MEASUREMENTS											

GREGO				MONITO	ORING WELL DEVELOPMENT LOG				Page _ \dagge_ of _ \dagge_			
				i je	·				Page		1_	
Well Numl Date Time Start Client Project Job Numb	All measurements Der	2-4 3-24 End: 2:	30	Borehole Diameter				7 0 P 3 wind pl	Oty. of Drilling Fluid Lost Minimum Gal. to be Purged Development Method Surge Bail Purging Equipment 3' 5.5 Bailer Water Level Equipment Solinist pH/EC Meter Horiba 4-70 Turbidity Meter Other			
Tíme	Amount Purged (gal.)	рН	EC	Field Pa	arameters Me	easured Temperature	SAL.	GPM W.L.	Comments		Field Tech.	
1:30	2.5/193	7.66	0,40	38.6	0.99	8.20		· 2.5 gp	n WL-	- 49.60	-	
2.10	2.5/1955 25/198	126	0.40	35 2%	1.02	18.34	-	1	W.L=	77.20		
2:30	5/203		1	27.4	101	18.18			W.L	45.20		
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		<u> </u>		FINAL	FIELD PARA	METER MEAS	UREMENTS				<u></u>	

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