Hersley, Jean

From: Flint Hall <flint@idahowaterengineering.com>
Sent: Thursday, March 5, 2026 12:44 PM
To: IDWR File
Cc: Ken Neely; Ryan Cleverley
Subject: Re: Water rights reporting 2025 Simco Rd 78356
Attachments: Simco Wells 2025 Annual report_transfer_no_78356_final.pdf

CAUTION: This email originated outside the State of Idaho network. Verify links and attachments BEFORE you click or open, even if you recognize and/or trust the sender. Contact your agency service desk with any concerns.

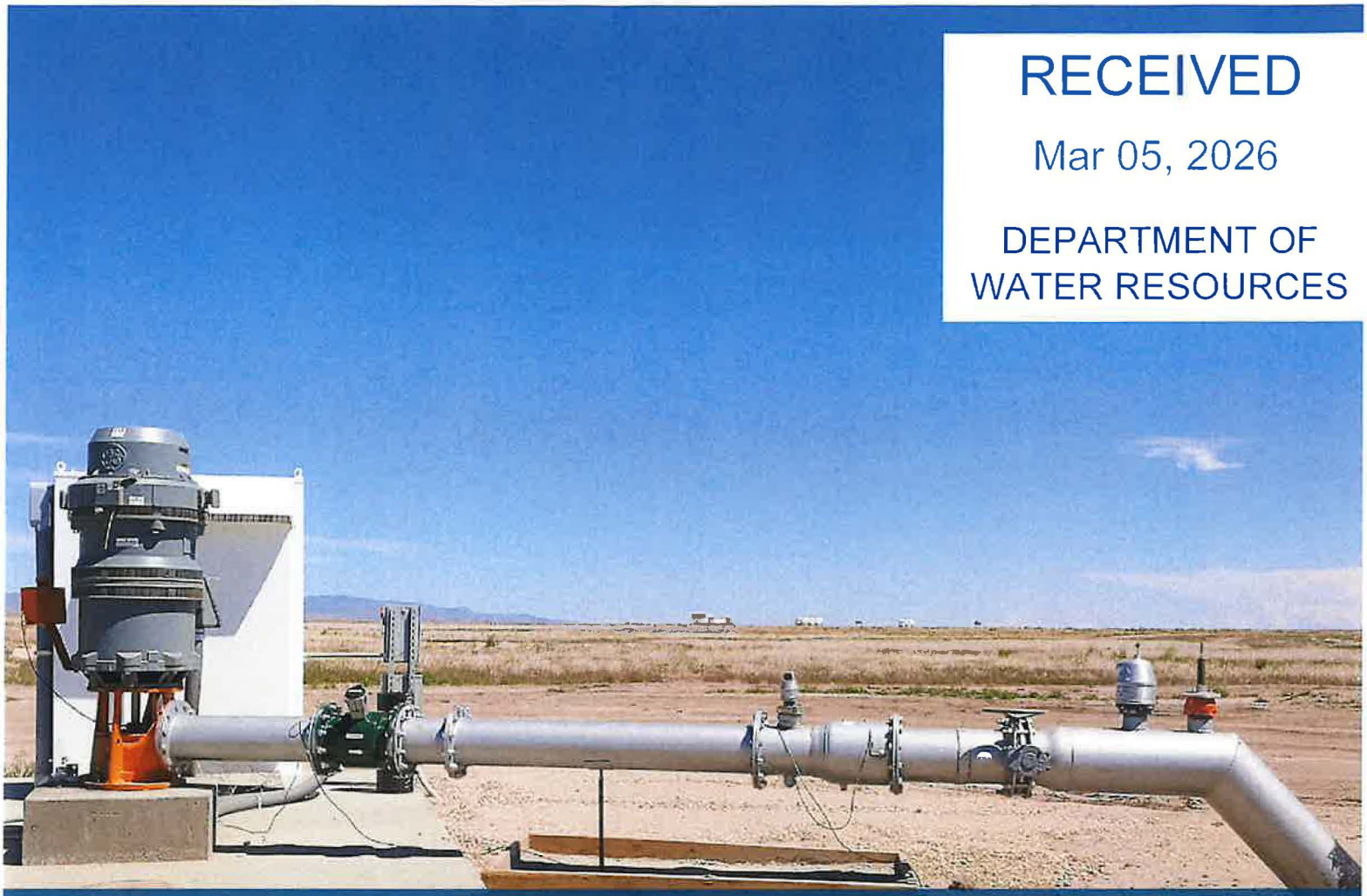
Ryan,
Attached is the corrected. Ken, I have the corrected in my files.

On Thu, Mar 5, 2026 at 11:55 AM Flint Hall <flint@idahowaterengineering.com> wrote:

Attached is the 2025 water rights monitoring report Water Rights Transfer 78356
--
Flint Hall, PG
Hydrogeologist
Idaho Water Engineering
208 520 5382

--
Flint Hall, PG
Hydrogeologist
Idaho Water Engineering
208 520 5382

RECEIVED
Mar 05, 2026
DEPARTMENT OF
WATER RESOURCES



2025 ANNUAL GROUNDWATER MONITORING REPORT

SIMCO WELLS NO. 1 & 2

Prepared For:
Ahlquist Acquisitions, LLC
114 S Silverstone Way
STE #500
Merdian, ID 83642

Prepared By:
L. Flint Hall, P.G.
Idaho Water Engineering, LLC
2918 N. El Rancho Pl.,
Boise, ID 83704

Idaho Water Engineering
Water Solutions

SIMCO WELLS NO. 1 & 2
2025 ANNUAL GROUNDWATER MONITORING REPORT

Final | 3/04/2026



Prepared on Behalf of
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SECTION 1 INTRODUCTION

1.1 Purpose

On January 21, 2016, Water Right No. 78356 was approved by the Idaho Department of Water Resources (IDWR). The approved transfer included six water rights: 61-12283, 61-12284, 61-12285, 61-12281, 61-12280, and 61-12282. A Condition of Approval of each water right was that "the diversion and use in connection with the water right is subject to a Monitoring-Reporting Plan".

As required by the Groundwater Monitoring Reporting Plan (**Appendix A**), an annual monitoring report shall be submitted to IDWR for the groundwater wells associated with Water Right Transfer No. 78356 (**Appendix B**). This document is the fourth annual monitoring report and documents compliance with the Reporting Plan. This annual monitoring report includes reporting of discharge (rate and volume), the corresponding water-level response, and acres irrigated and crops produced for the reporting period.

1.2 Background

As noted above, Water Right Transfer No. 78356 was approved by IDWR in January 2016. The approved transfer included six water rights: 61-12283, 61-12284, 61-12285, 61-12281, 61-12280, and 61-12282. Two new groundwater production wells and a monitoring well were drilled on land owned by J&M Solid Rock during 2018 and 2019 and accessed from Simco Rd. The wells are identified as J&M Pumping Well (PW) No. 1 (Simco Well No.1, Simco West Well, D0080123), J&M PW No. 2 (Simco Well No.2, Simco East Well, D0082843), and J&M Monitoring Well (MW) No. 1 (MW No.1, D0073073). The two points of diversion under the water right are J&M PW No. 1 and J&M PW No. 2. The irrigation water right allows for diversion of up to 1,476 acre-feet (af) annually at a maximum diversion rate of 5.560 cubic feet per second (cfs). The place of use comprises approximately 765 acres owned by four primary landowners, represented by JBR Holdings, LLC.

1.3 Location

J&M PW No. 1 (NWSW quarter-quarter), J&M MW No. 1 (NWSW quarter-quarter), and J&M PW No. 2 (NESW quarter-quarter) are in Section 14 of Township 1S and Range 4E. The parcels are located south of Highway 84 near Mountain Home, ID, and are shown in **Figure 1-1**.

1.4 Well Operation

The two production wells (J&M PW No. 1 and J&M PW No. 2) are operated by the contract farmer as needed to irrigate the crops identified in **Section 1.5**. Both wells use variable-frequency drives (VFDs) to operate the pumps. To operate the wells in concert, the J&M PW No. 1 VFD maintains a user-specified flow rate, and the J&M PW No. 2 VFD maintains a user-specified pressure in the irrigation system.

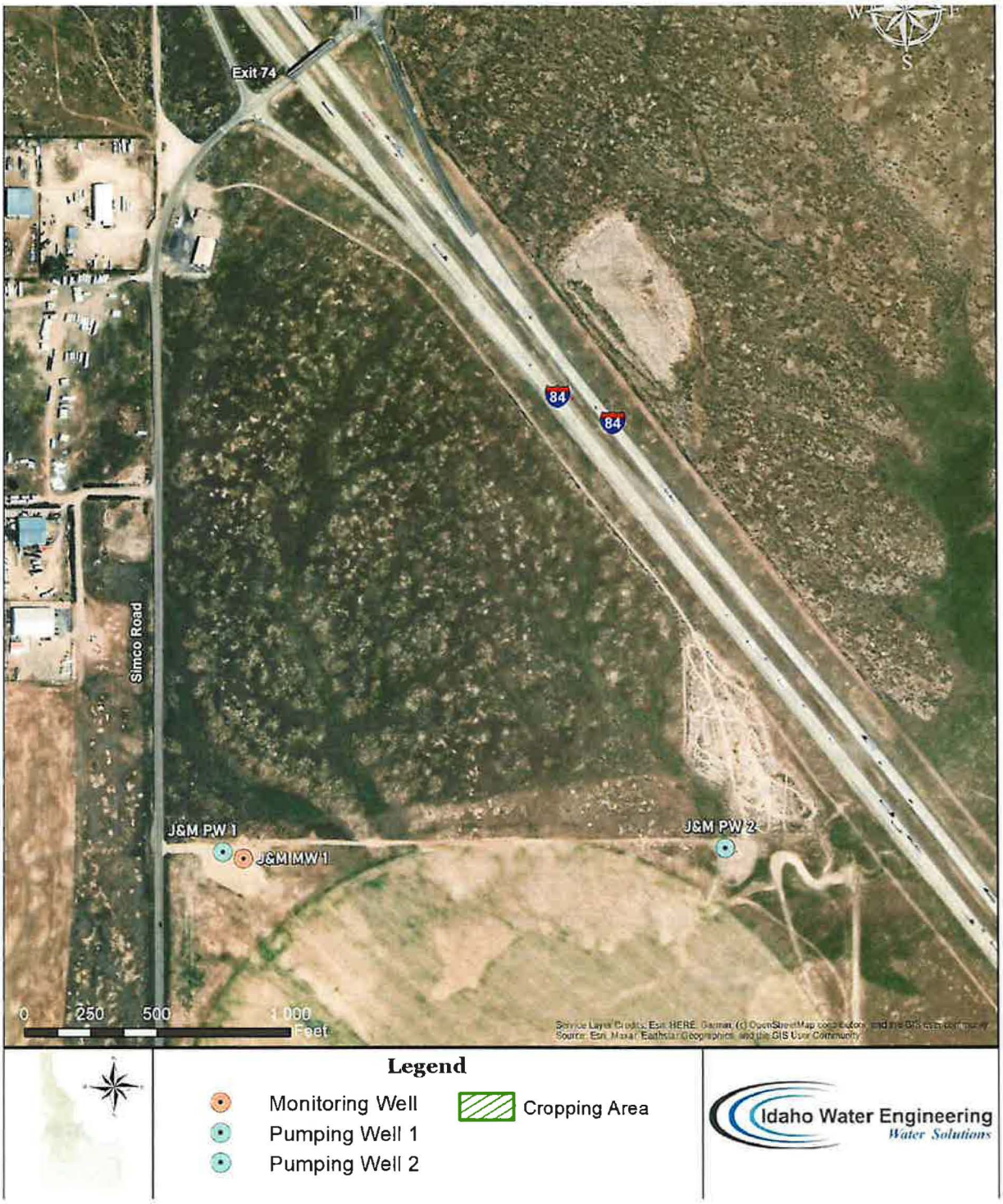


Figure 1-1 Vicinity Map, Simco Wells Annual Monitoring Report.

1.5 Cropping Plan

Water is diverted from the production wells and pumped to four separate center pivots, shown in **Figure 1-2.** The maximum amount of water allowed for irrigation is 4 acre-feet per acre. During 2025, a total of 191 acres were irrigated. Crops irrigated consisted of feed corn. Acreage and crops for 2025 were confirmed by the 2025 National Land Cover Cropland data, released in 2026.

1.6 Monitoring Plan

To provide a standard method of data collection, a Plan of Operation (**Appendix C**) was prepared in 2020. This plan was updated in 2024 to reflect observations from 2020-2023. A list of installed equipment is as follows:

- Groundwater level monitoring: Keller DCX-18 ECO lever loggers (water level transducers A, C), **Appendix D.**
- Manual groundwater level measurements: Solinst Coaxial Cable Water Level Meter, **Appendix E.**
- Solinst Levelogger (water level transducer), **Appendix E.**
- Barometric pressure monitoring: Solinst Barologger 5 (barometric pressure transducer), **Appendix E.**

Each well has one submerged water level transducer. Due to the proximity of the three wells, the barometric pressure is assumed to be the same at all three. The barometric transducer is deployed in J&M MW No. 1. **Figure 1-3** shows the construction of all three wells and the location of equipment installed in each. Initially, monthly manual groundwater-level measurements were used to verify transducer measurements.

As recommended in the *2023 Annual Groundwater Monitoring Report* and documented in the 2024 update to the Shekinah Groundwater Monitoring and Reporting Plan, continuous groundwater-level and barometric-pressure monitoring occurs at 6-hour intervals throughout the year. A flow meter on the discharge piping of each production well monitors totalized flow and instantaneous diversion rate. Both values are to be recorded concurrently with the transducer readings.

At the beginning of 2025, the transducer deployments were as follows: Keller water level transducer identified as Transducer A (SN 200281) was deployed in well J&M PW No. 1, at a depth of 495 feet (ft) below ground surface (bgs), 7 ft above the top of the pump intake. Keller transducer identified as Transducer C (SN 10400) was deployed in well J&M PW No. 2. New cable was attached to this transducer to confirm deployment at a depth of 455 ft bgs, April 24th 2025. This also places the transducer at 7 ft above the pump intake for J&M PW No. 2. A Solinst water level transducer (SN 2080073) was deployed in J&M MW No.1 at a depth of 460 ft bgs. A Solinst barologger (SN 2120643) was also deployed in J&M MW No. 1, placed at 50 ft bgs.

Monitoring data available for 2025 was affected by technical issues, similar to those in previous years. On retrieval and review of the data record, pressure response indicated that this transducer C was "hung" in the measuring port at a much shallower depth. This could be due to the possibility of a combination of debris remaining after the recorded loss of a transducer in 2023, pump turbine oil at the top of the water table, and the small size of the measuring port (3/4" diameter) relative to the diameter of the transducer (~11/16").

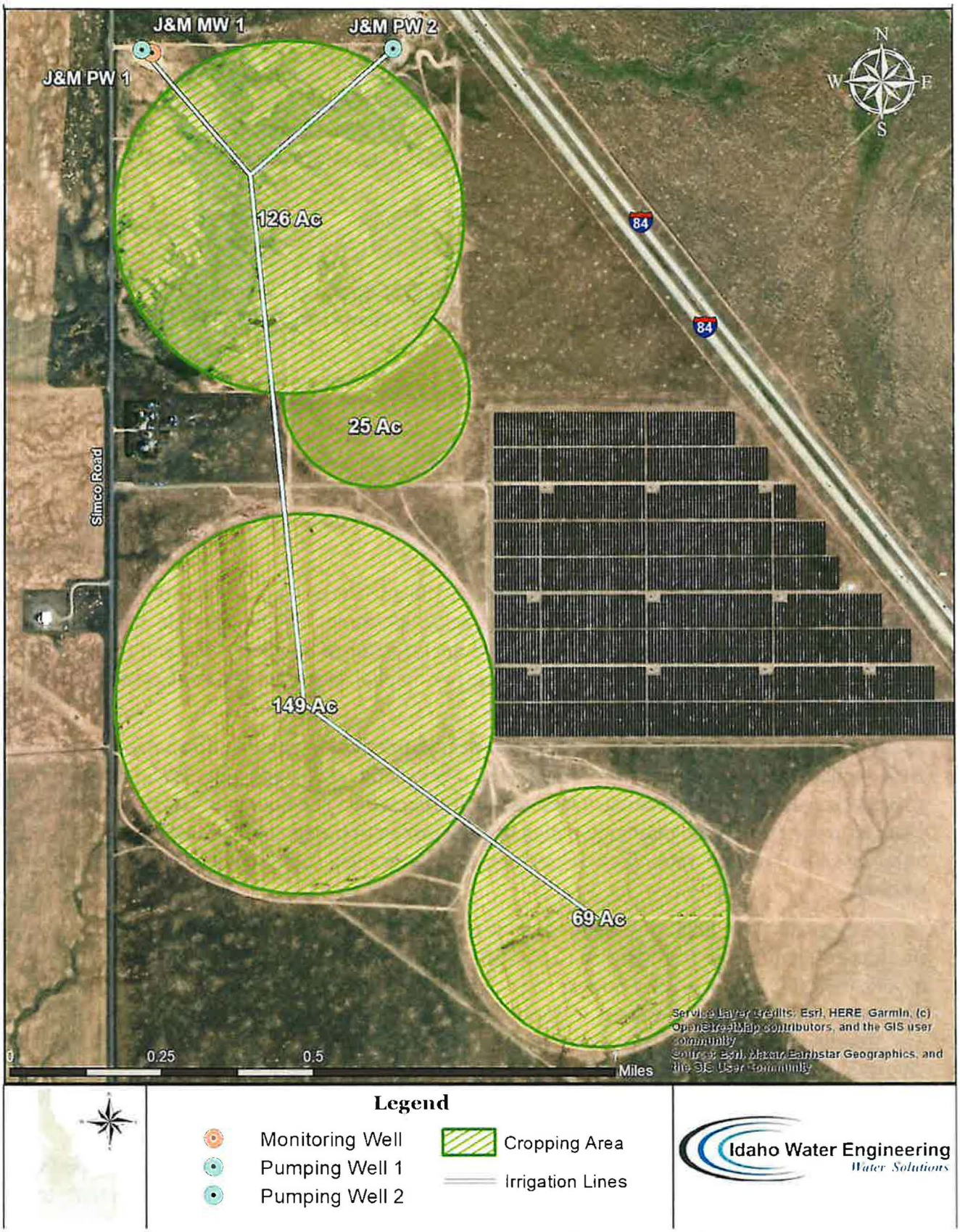
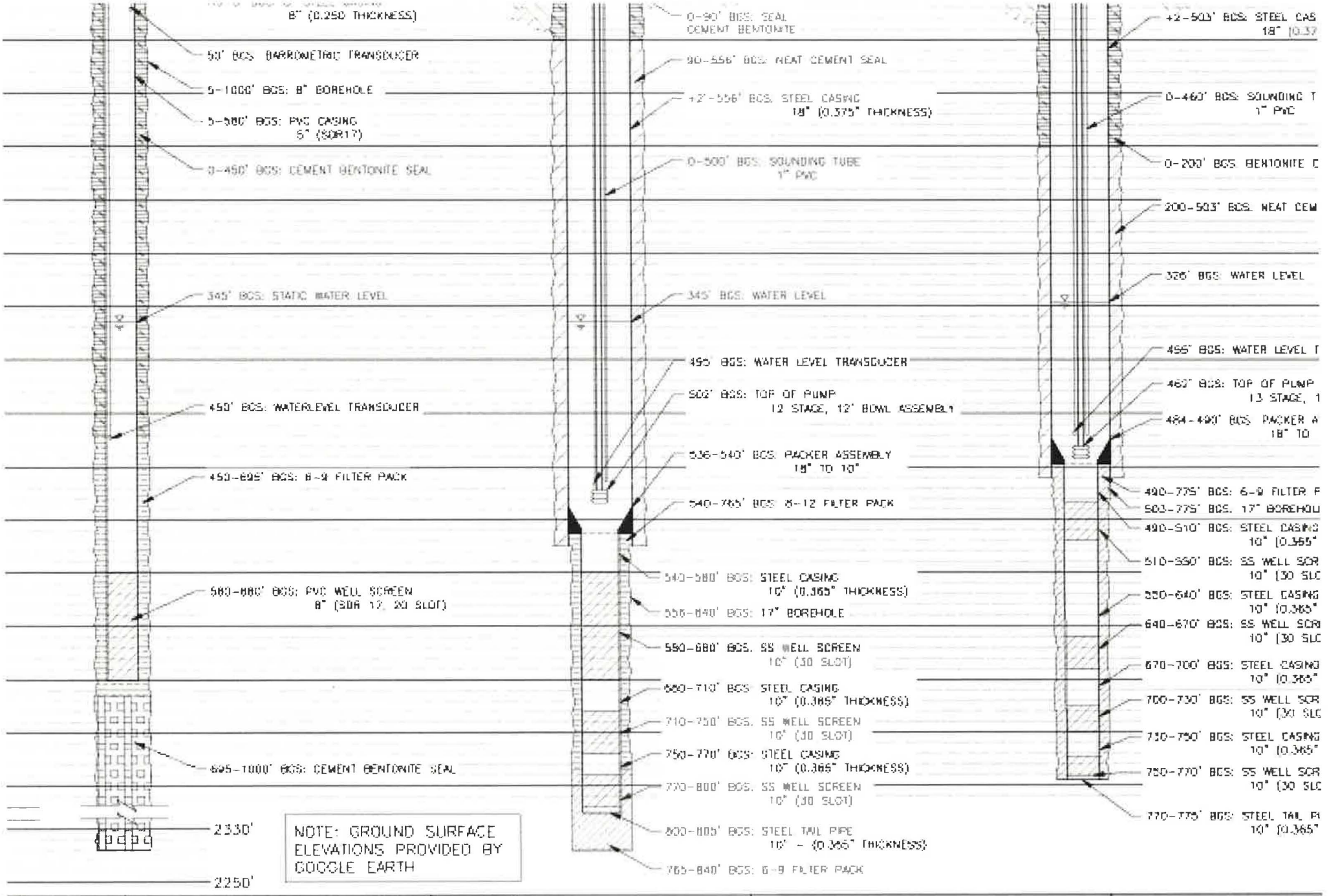


Figure 1-2 Cropping Plan for Simco Wells Annual Monitoring Report.



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Mountain WATERWORKS

ENGINEERING AND ENVIRONMENTAL SOLUTIONS
1161 W. RIVER ST. SUITE 150
BOISE, IDAHO 83702
208.780.5000

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SIMCO WELL COI

SECTION 2 FLOW MONITORING

Totalized flow and instantaneous diversion rate of each production well were measured by a magnetic flow meter located in each well's discharge piping. These values were manually recorded prior to the beginning and following the conclusion of the 2025 pumping season. The pumps operated from May 2025 through September 2054. A total of approximately 1,194 acre-feet of water was diverted under the water right. The pump records could not be retrieved for 2025 to confirm the maximum recorded diversion rate of 5.49 cfs; however, as there was no change in pump controller operations, it can be assumed that the maximum diversion rate was consistent with the previous year's operations (**Table 2-1**). Based on the recorded data[1]The points of diversion (J&M PW No. 1 and J&M PW No. 2) were in compliance with the maximum allowable diversion volume (1,476 acre-feet) and rate (5.56 cfs), as identified in Water Right Transfer No. 78356.

Table 2-1: **Flow Monitoring at Simco Production Wells, 2025**

Location	Total Diversion Volume		Maximum Recorded Diversion Rate	
	million gallons	acre-feet	gpm	cfs
J&M PW No. 1	189.5	581	1,135	2.52
J&M PW No. 2	199.7	613	1,342	2.98
Total	**389.2**	**1,194**	**2,477**	**5.50**
Allowed by Water Right	**481.0**	**1,476**	**2,495**	**5.56**

Note: The maximum diversion rate was calculated as the sum of the highest individual observed flows from each well based on pump controller records.

[1] Available dates for flow and totalizer volumes, J&M PW No.1 and No.2 : 1/14/2025, 11/12/2025.

SECTION 3 GROUNDWATER MONITORING

Results for continuous and manual groundwater monitoring of the 2025 calendar year are presented in the following sections. The calculated water level is based on transducer setting depth, the height of water measured over the transducer, and the water levels after they have been adjusted for observed barometric pressure. Transducers were pulled and read 1/14, 4/24,7/28, and 11/12/2025.

3.1 Continuous Monitoring

3.1.1 Production Well No. 1 (J&M PW No. 1, Simco West Well)

Groundwater level monitoring results for Simco West Well are shown in **Figure 3-1.** The observed water level increased following the conclusion of pumping in the fall of 2024, reaching a high of 346 ft bgs prior to the beginning of pumping in 2025, compared to the initially reported static groundwater level of 345 ft bgs at completion in 2016. Pumping for 2025 began at the Simco West Well on 5/1, which corresponds to the first sharp downward trend in water level. Pumping for the season concluded 9/3/2025, as demonstrated by the beginning of water-level recovery.

Periods of sharp downward-trending groundwater levels indicate diversion from the Simco West Well. While upward spikes indicate periods of no diversion from this well. These decline and characteristic recovery curves represent distinct pumping cycles. The maximum drawdown recorded was 149.9 ft below the preseason water level with a corresponding pumping level of 495 ft bgs for 2025. The static water level of 345 ft bgs presented on the graph reflects the reported water level at the time of well completion in 2019.

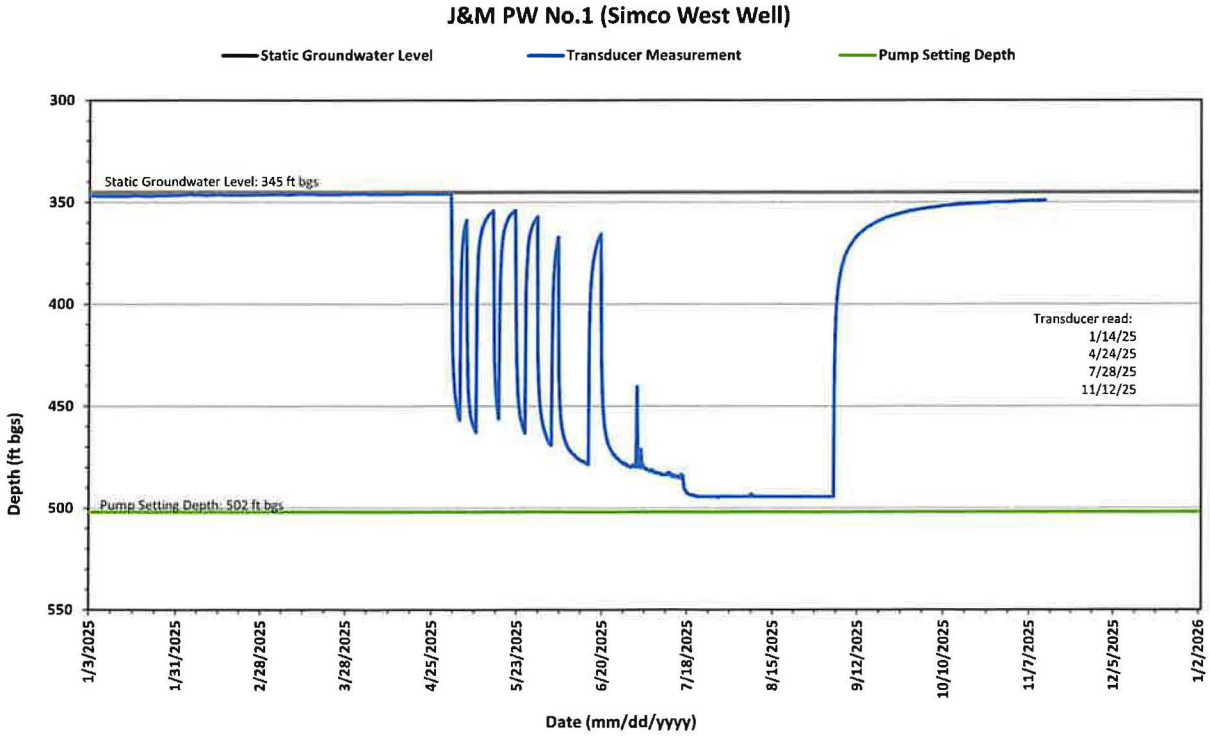


Figure 3-1: Groundwater level monitoring for Simco West Well, 2025.

This maximum drawdown is roughly equivalent to the transducer depth, indicating that the actual maximum drawdown may be greater than that, but less than the pump intake depth of 502 ft bgs.

3.1.2 Production Well No. 2 (J&M PW No. 2, Simco East Well)

The water level record for well Simco East Well for 2025 (Figure 3.2) is compromised due to difficulty in setting the transducer to the required depth and other possible complications, as previously discussed in section 1.6. The resulting transducer record is of limited use but can be utilized to confirm the relative pre- pumping and post- pumping water levels for wells Simco West and Simco East Wells.

Comparison of transducer records for Simco West and Simco East Wells for the period prior to 2025 indicates an approximate 18-20 ft difference in groundwater depth during non-pumping periods. Records also show similar drawdown patterns during the typical diversion period, with a difference of about 45 ft in maximum drawdown for the period prior to 2025. While the transducer record for Simco East Well cannot be correlated with an accurate water level due to uncertainty in placement depth, a similar seasonal water-level response is observed in 2025 for the portions of the record captured. Likewise, comparison of pre-pumping and post-pumping levels indicated from transducer records suggests that aquifer levels recovered to approximately the previous year water level prior to the 2025 pumping season and to within about 4 ft of initial pumping levels by the 11/12/25 final transducer record. **Figure 3-3** provides a comparison of water level response from Simco West Well with the record for Simco East Well based on the planned transducer depth and an adjusted depth based on water level response.

Comparison of pre- and post-season transducer records suggests that the transducer is "hung" at a depth of about 35 ft below the static water level ~362 ft bgs, and approximately 93 ft above the intended depth. The cable length for the Simco East Well was measured and confirmed to be sufficient length to allow deployment to the desired depth of 455 ft bgs. The transducer response indicates that there is an obstruction in the measurement port; the port will likely need to be pulled and replaced as indicated in section 1.6.

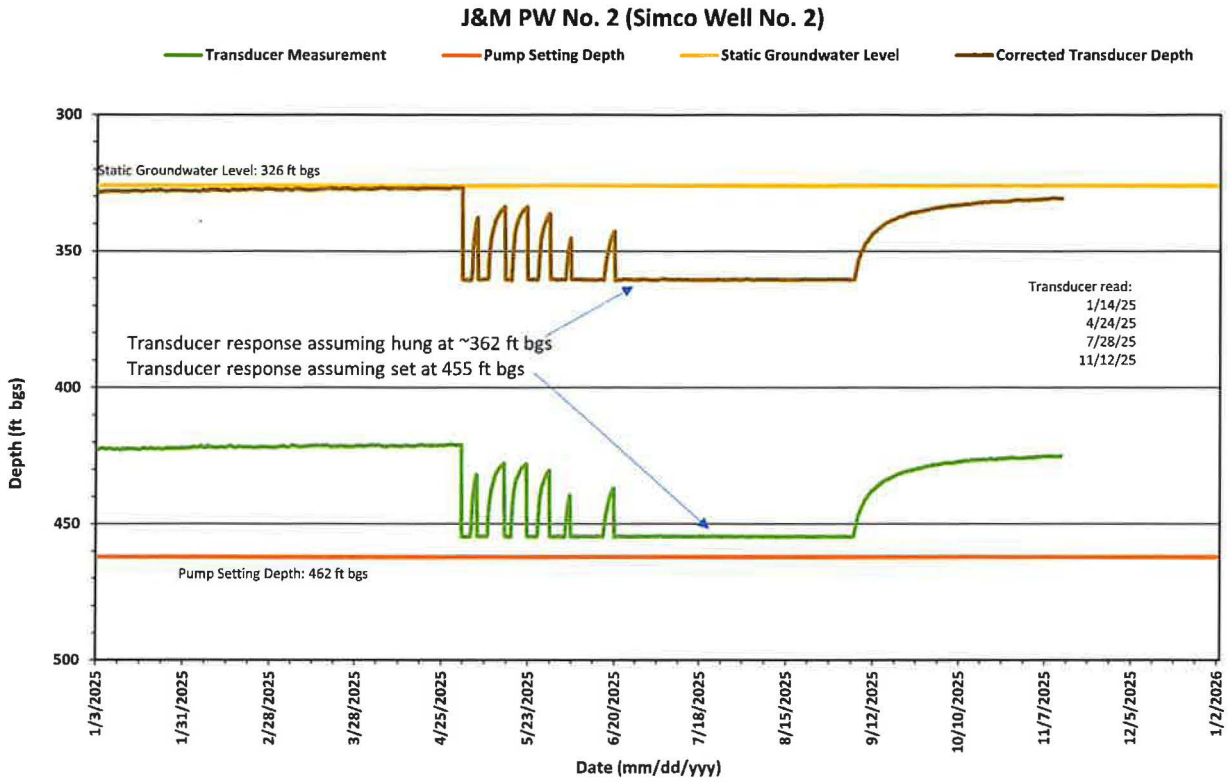


Figure 3-2: **Groundwater level monitoring for Simco East Well.**

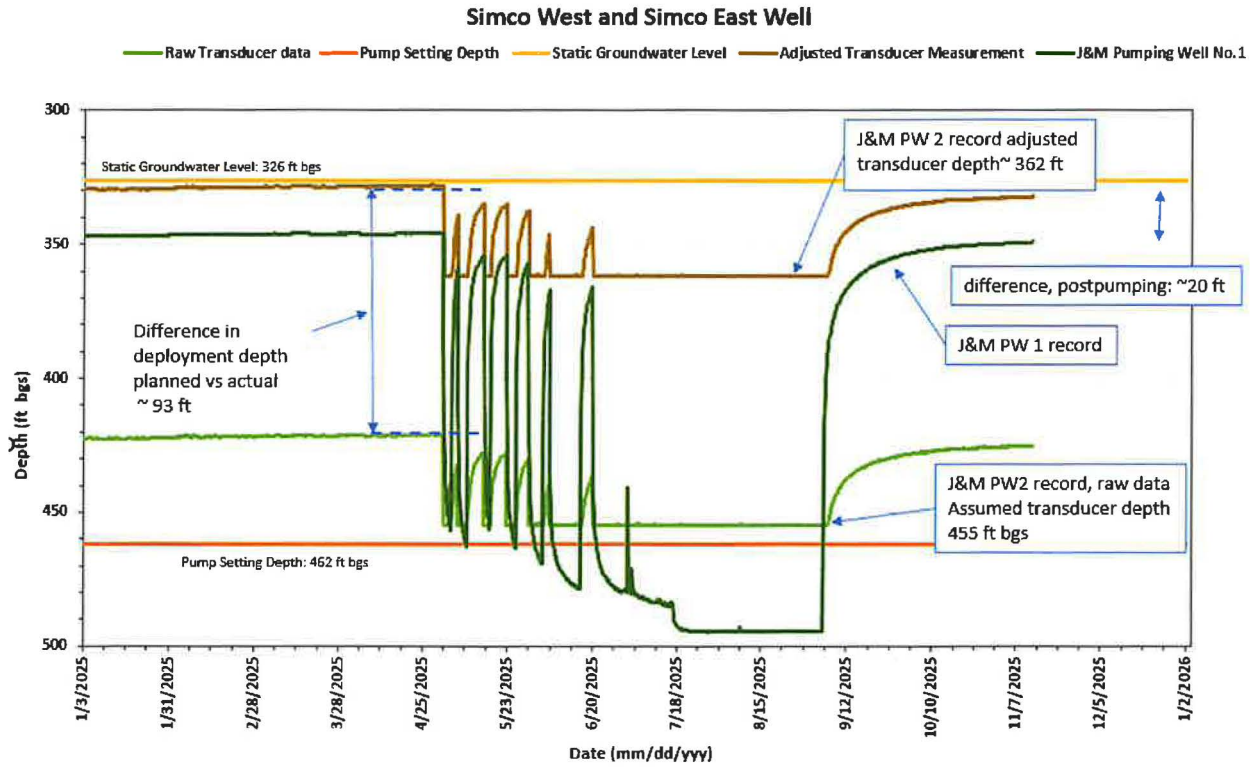


Figure 3-3: Comparison of Simco West Well and Simco East Well with adjusted response, 2025.

3.1.3 Monitoring Well (J&M MW No. 1, Simco Monitoring Well)

Barometric pressure and groundwater level were monitored in J&M MW No. 1. Groundwater monitoring results are presented in **Figure 3-4**.

The Solinist Barologger deployed to J&M MW No. 1 (Simco Monitoring Well) provides a barometric pressure record allowing transducers/levelloggers to be corrected to elevation/barometric pressure. A continuous record is available through the 2025 monitoring period.

The groundwater level record for J&M MW No. 1 (Simco Monitoring Well) for 2025 is provided by a Solinst level logger transducer deployed at a depth of 460 ft bgs. A continuous water level record is available for 2025 through 7/28/2025. The transducer could not be read in the field and was eventually returned to the manufacturer for reading and refurbishment. Repair could not be accomplished in time to be redeployed during the 2025 irrigation season.

The observed groundwater level record for Simco Monitoring Well reflects the pattern of water level and drawdown observed for Simco West Well, located in close proximity to Simco Monitoring Well. Water level for Simco Monitoring Well recovered to ~351 ft bgs prior to the beginning of pumping for 2025, equivalent to that observed for 2024. Continuous water level records are available through 07/28/2025 when the transducer was pulled for reading. The instrument could not be read in the field and was eventually returned to the manufacturer for maintenance, where the battery was replaced, and the record from 04/24/2025 was recovered.

The maximum drawdown recorded was 96.0 ft below the preseason water level, corresponding to 447.8 ft bgs. Variations in water levels during the irrigation period closely reflect pumping from Simco West Well. Surface elevations for Simco West and Simco Monitoring Well differ by about 1 ft. Surface elevations for Simco West and MW No. 1 differ by 1 ft (ground level: 3281 ft and 3280 ft). Non-pumping season levels are about 6 ft greater for Simco West than for Simco Monitoring well, and with maximum drawdown during pumping cycles, about 36 - 44 ft greater for the pumping well than for the monitoring well.

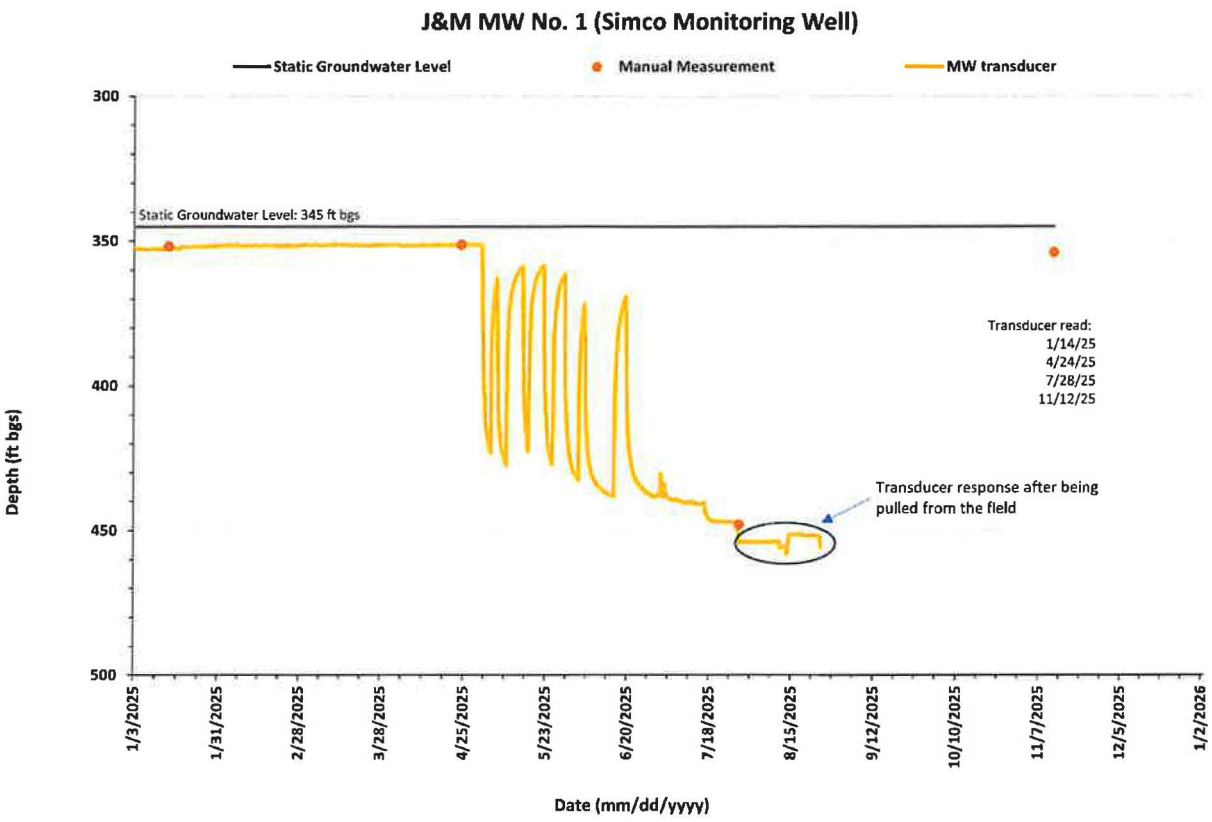


Figure 3-4: Simco Monitoring Well, 2025.

3.2 Manual Measurements

Manual measurements for Simco West and Simco East Wells were attempted monthly prior to 2023, and periodically until discontinued after 2024. Manual measurements for Simco Monitoring Well for 2025 are indicated as orange circles on **Figure 3-4**. The manual measurements serve as confirmation for groundwater levels based on the transducer installation depth and barometric pressure reading.

SECTION 4 SUMMARY AND RECOMMENDATIONS

4.1 Summary

Monitoring during 2025 was conducted sufficiently to assess changes in groundwater levels and compliance with withdrawal rates. Groundwater and flow monitoring indicate that the operation of the J&M Solid Rock Wells was in compliance with Water Right Transfer No. 78356 in 2025. A summary of the 2025 monitoring is as follows:

- Maximum drawdowns of 149.9 feet and 96 feet were recorded for Simco West Well and Simco Monitoring Well, respectively. The accuracy of measurement of drawdown for Simco East Well was compromised due to issues related to the difficulties encountered with deployment; thus, a maximum drawdown for this well can't be determined, though the available record reflects a similar response to Simco West Well.
- Groundwater levels for Simco West Well completely recovered to prepumping levels prior to the start of the 2025 irrigation season. Water levels recovered to within 2 ft of 2024 pre-pumping levels by 11/12/2025. Water level for Simco Monitoring Well had recovered completely to 2024 pre-pumping levels prior to the start of the 2025 irrigation season. Water level record was not available to assess recovery for the Simco Monitoring Well, however, previously established correlations between Simco West and Simco Monitoring Wells suggest a similar recovery for the monitoring well.
- A total of 1,194 acre-feet of groundwater was diverted from the production wells at a maximum assumed rate of 5.49 cfs.
- Feed corn was grown for 2025, with a total estimated irrigation area of approximately 191 acres.

4.2 Owner Recommendations

- It is recommended that the new owners/operators of this property correct the issue related to the apparent obstruction in the measuring port for Simco East Well to allow a proper water level record to be obtained for the 2026 irrigation season.
- Arrangements should be made to confirm the maximum discharge/diversion rate. This can be accomplished by obtaining the pump operation records and or by field visits to record the diversion rate during pumping.

Appendix A

Groundwater Monitoring Reporting Plan, April 18, 2024

Idaho Water Engineering
Water Solutions

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Cell: (208) 870-0345
Fax: (888) 538-7703

April 18, 2024

Ashley M. Ritter, Associate Engineer
Idaho Department of Water Resources
2735 W Airport Way
Boise, Idaho 83705

Subject: Groundwater Monitoring-Reporting Plan Associated with Water Right Transfer No. 78356

Dear Ashley,

In accordance with conditions related to the approved Water Right Transfer No. 78356 for Shekinah Industries, Inc. (Shekinah) and in response to communications with Kenneth Neely, Hydrogeologist, Idaho Water Engineering (IWE), attached is an updated Monitoring Plan for your review and approval.

Water Right Transfer No. 78356 was approved by IDWR in January, 2016. The approved transfer included six water rights: 61-12283, 61-12284, 61-12285, 61-12281, 61-12280, and 61-12282. The following table summarizes land ownership associated with the transferred water rights.

Table 1: Shekinah Water Right Ownership

Land Owner	Acres	Water Ownership (%)	Water Vol. (AFA)
Duane & Cheryl Amyx	32.14	3.39	50.0
Paul & Sheila Hudson	100.00	10.56	155.9
J&M Solid Rock, LLC	160.00	16.89	249.3
Shekinah Industries Inc.	481.76	69.16	1020.8
Totals	**773.90**	**100.00**	**1,476.0**

Background Information

The initial Groundwater Monitoring Plan dated May 4th, 2020 provided the context to collect sufficient information to characterize groundwater level response to withdrawals at the indicated points of diversion (J&M PW No. 1 and J&M PW No. 2) in both production wells and an associated monitoring well (J&M MW No. 1) within the limits of 1,476 acre-feet annually at a maximum diversion rate of 5.56 cfs applied to a total of 369-acres within the total 774 acres within the approved place of use. Updates to recording instruments, updates to monitoring frequency and reporting date agreed to are presented in the following Groundwater Monitoring-Reporting Plan. Conditions encountered during the measurement season may require updates to specific measurement instruments utilized and deployment depths. Such departures will be documented in the associated monitoring report.

Please contact me directly with questions or comments regarding this updated monitoring and reporting plan. Following IDWR review of the report, we request a brief conference call to discuss any concerns with the updated monitoring plans and the 2023 annual monitoring report submitted. forward.

Respectfully submitted.

L. Flint Hall, PG
Idaho Water Engineering
208 520-5382
Flint.hall@idahowaterengineering.com

Cc: Angela Hansen, IDWR
Attachment: Groundwater Monitoring-Reporting Plan Associated with Water Right Transfer No. 78356

Shekinah Groundwater Monitoring-Reporting Plan

Monitoring Well (J&M MW No. 1), J&M PW. No. 1 (D0080123), J&M PW No. 2 (D0082843)

April 18, 2024

Groundwater Monitoring-Reporting Plan

1. Groundwater Monitoring

1.1. Continuous water level monitoring by pressure transducer for production wells (J&M PW. No.1 D0080123, J&M PW No. 2 D0082843), and observation (monitoring) well (J&M MW No. 1 D0073073) with a reading frequency of every six hours.

1.2. Continuous barometric pressure monitoring by transducer placed in the monitoring well (J&M MW No. 1) with a reading frequency of every six hours, concurrent with the production and observation well transducer recording frequency.

1.3. Manual water level measurements for production wells and monitoring well three time per calendar:

- Once within 30 days prior to commencement of pumping (typically sometime in April)
- Once within 30 days of the cessation of pumping (typically mid to late October)
- Once on or shortly after January 1st.

Table 1. Well Name, Tag No, Transducer, and deployed depth for Shekinah Groundwater Monitoring

Well Name	Tag No.	Deployed Transducer	Deployed Depth
J&M PW No. 1 (Simco Well No. 1)	D0080123	Transducer A – 200281 (Keller)	495' bgs
J&M PW No. 2 (Simco Well No. 2)	D0082843	Transducer C – 104000 (Keller)	455' bgs
J&M MW No. 1 (Simco Monitoring Well)	D0073073	MW transducer - 2080073 (Solinist)	460' bgs
		Barometric transducer - 2120643 (Solinst)	50' bgs

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Fax: (888) 538-7703

2. Flow Monitoring

2.1. A flowmeter on the production wells (e.g. magmeter) to record discharge will be maintained.

2.2. The flowmeter should meet IDWR's minimum acceptable standards for measurement and reporting of surface and groundwater diversions;

- Minimum manufacturers' design accuracy of +/- 2 percent of reading.
- Installed accuracy of at least +/- 10 percent of reading.
- Must read instantaneous flow or be capable of flow rate calculation.
- Must record total volume.
- Non-volatile memory (power outage does not zero volume reading).
- Sufficient digits to assure "roll-over" to zero does not occur within 2 years.
- Volume reading cannot be "reset" to zero.
- Installed to manufacturers' specifications.

3. IDWR Reporting

3.1. Submission of an annual report to IDWR that would include:

- Analysis of water level trends in the production wells, and shallow monitoring well.
- Reporting of discharge rates over time and analysis in relation to water level trends.
- Reporting of crops grown and acres irrigated during the year.
- This report will include any departure from monitoring plans for the reporting year.
- This report will be due February 15th for the monitoring from the previous year.

Idaho Water Engineering
Water Solutions

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IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. WELL TAG NO. D 0080123
Drilling Permit No. 887433
Water right or injection well # Transfer #78356

2. OWNER:
Name J&M Solid Rock LLC
Address 1761 S. Phillippi
City Boise State Id Zip 83705

3. WELL LOCATION:
Twp. 1 North ☒ or South ☐ Rge. 4 East ☒ or West ☐
Sec. 14 ____ 1/4 N.W. 1/4 S.W. 1/4
Gov't Lot ____ County Elmore
Lat. 43 ° 20.052' N (Deg. and Decimal minutes)
Long. 115 ° 57.240' W (Deg. and Decimal minutes)
Address of Well Site 3,400' South of I 84 on Simco Rd.
(Give at least name of road • Distance to Road or Landmark) City ____
Lot ____ Blk. ____ Sub. Name ____

4. USE:
☐ Domestic ☐ Municipal ☐ Monitor ☒ Irrigation ☐ Thermal ☐ Injection
☐ Other ____

5. TYPE OF WORK:
☒ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other ____

6. DRILL METHOD:
☐ Air Rotary ☐ Mud Rotary ☐ Cable ☒ Other Reverse Rotary

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method/procedure
Bentonite chips	0'	90'	5 yards	Poured
Cement	90'	556'	21 yards	Pumped

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/ Schedule	Material	Casing	Liner	Threaded	Welded
18'	+2'	556'	.375	Steel	☒	☐	☐	☒
10"	540'	580'	.365	Steel	☐	☒	☐	☒
10'	680'	710'	.365	Steel	☐	☒	☐	☒
10'	750'	770'	.365	Steel	☐	☒	☐	☒

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s) ____

9. PERFORATIONS/SCREENS:
Perforations ☐ Y ☒ N Method ____
Manufactured screen ☒ Y ☐ N Type Johnson Vee Wire
Method of installation Lowered

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
580'	680'	.30	100'	10"	Stainless	250'
710'	750'	.30	40'	10"	Stainless	250'
770'	800'	.30	30'	10"	Stainless	250'

Length of Headpipe ____ Length of Tailpipe 5'
Packer ☒ Y ☐ N Type Figure K Swedge Packer

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method
8-12	808'	765'	3,000 lbs	Poured
6-9	765'	540'	16,200 lbs	Poured

11. FLOWING ARTESIAN:
Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG) ____
Describe control device ____

12. STATIC WATER LEVEL and WELL TESTS:
Depth first water encountered (ft) 345' Static water level (ft) 345'
Water temp. (°F) 64 Bottom hole temp. (°F) 64
Describe access port Will be added 2" pipe

Well test: **Test method:**

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Pump	Bailer	Air	Flowing artesian
121'	1500	480	☒	☐	☐	☐
124'	1,230	960	☐	☐	☐	☐

Water quality test or comments: ____

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water Y	Water N
24"	0'	10'	Clay topsoil		X
	10'	120'	Cemented sand & gravel		X
	120'	129'	Sand & gravel		X
	129'	170'	Cemented sand & gravel		X
	170'	183'	Sand & gravel		X
	183'	203'	Tan clay		X
	203'	225'	Sand & gravel		X
	225'	270'	Tan clay		X
	270'	285'	Sand & gravel	X	
	285'	400'	Cemented sand & gravel		X
	400'	430'	Basalt		X
	430'	450'	Sandstone		X
	450'	480'	Cemented sand & gravel	X	
	480'	498'	Basalt		X
	498'	515'	Cemented sand		X
	515'	525'	Hard sandstone		X
	525'	578'	Cemented sand & clay streaks	X	
	578'	680'	Course sand with clay streaks	X	
	680'	691'	Brown clay		X
	691'	705'	Cemented fine sand		X
	705'	710'	Blue clay		X
	710'	741'	Fine blue sand	X	
	741'	769'	Blue clay		X
	769'	800'	Fine blue sand	X	
	800'	840'	Light blue clay with fine sand streaks		X
			18"ϕ ↑ 7'1" 12" pipe 5' ↓ Figure K Packer		

Completed Depth (Measurable): 805'
Date Started: 7-10-18 Date Completed: 4-23-19

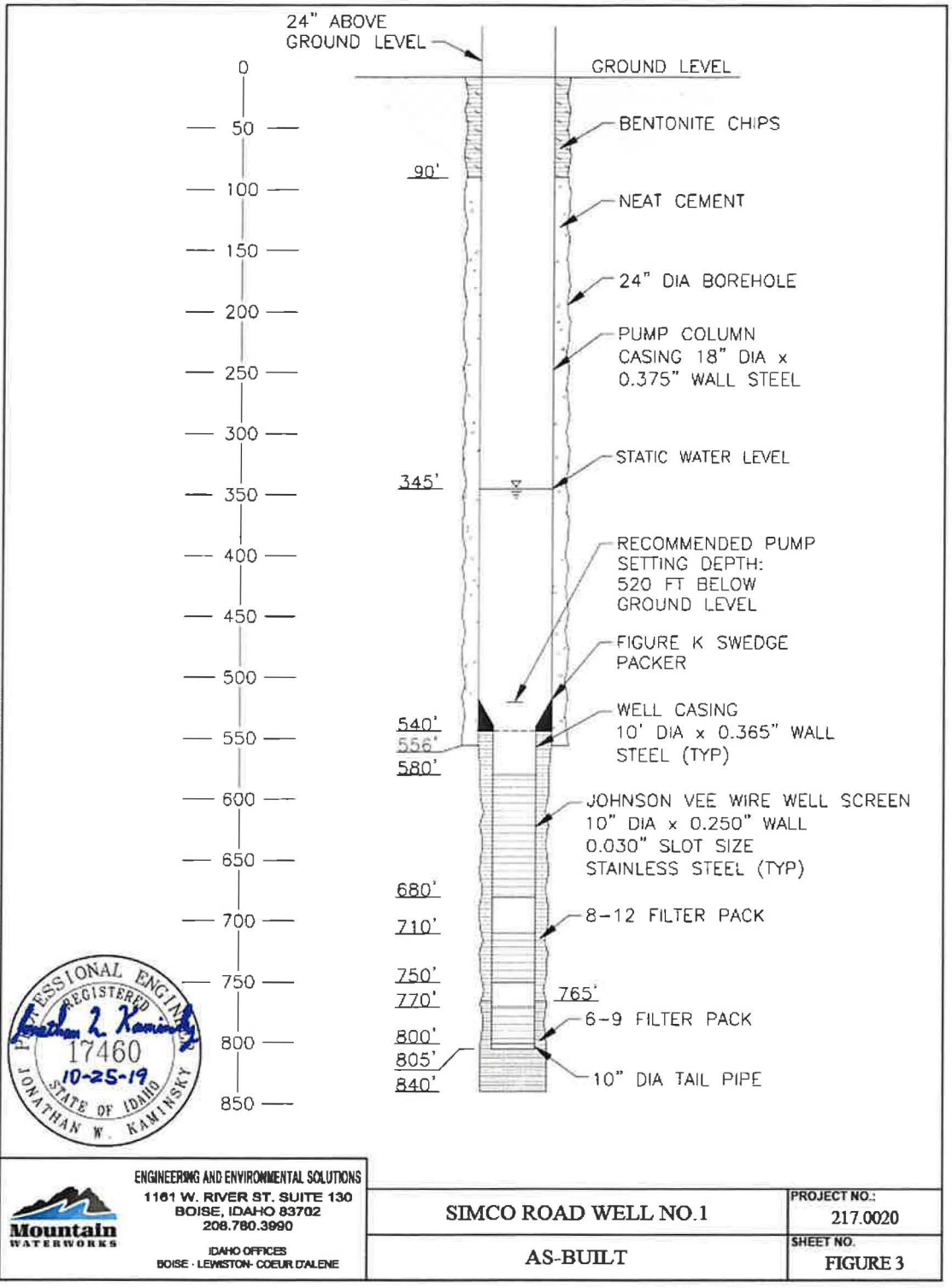
14. DRILLER'S CERTIFICATION:
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.
Company Name Stevens & Sons Co. No. 153
*Principal Driller ____ Date 4-24-19
*Driller ____ Date 4-24-19
*Operator II ____ Date ____
Operator I ____ Date ____
* Signature of Principal Driller and rig operator are required.

Figure 1 J&M PW No. 1 (Simco Well No. 1)

Idaho Water Engineering
Water Solutions

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www.idahowaterengineering.com
info@idahowaterengineering.com

Office: (208) 378-1513
Cell: (208) 870-0345
Fax: (888) 538-7703



Path: B:\Projects\I-LJKB_217\0010 Well 1\CSD\Well Asbuilt.dwg File Name: Well Asbuilt.dwg Plot Date: 10/25/2019 1:49 PM Duce

Mountain WATERWORKS
ENGINEERING AND ENVIRONMENTAL SOLUTIONS
1161 W. RIVER ST. SUITE 130
BOISE, IDAHO 83702
208.780.3990
IDAHO OFFICES
BOISE - LEWISTON- COEUR D'ALENE

SIMCO ROAD WELL NO.1	PROJECT NO.: 217.0020
AS-BUILT	SHEET NO. FIGURE 3

Idaho Water Engineering
Water Solutions

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Cell: (208) 870-0345
Fax: (888) 538-7703

Form 238-7
6/07

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. WELL TAG NO. D 0082843
Drilling Permit No
Water right or injection well # Transfer No. 783566 61-12280
2. OWNER: 61-12281 61-12282 61-12283 61-12284
Name J&M Solid Rock
Address 1761 S. Phillippi
City Boise State Id. Zip 83705

3. WELL LOCATION:
Twp 1 North ☐ or South ☒ Rge 4 East ☒ or West ☐
Sec. 14 1/4 N.E 1/4 S.W. 1/4
Gov't Lot County Elmore
Lat 43 ° 20.184 (Deg. and Decimal minutes)
Long. 115 ° 56.770 (Deg. and Decimal minutes)
Address of Well Site 34.00' South of I 84 on Simco Road.
2,400' East City
Lot Blk. Sub Name

4. USE:
☐ Domestic ☐ Municipal ☐ Monitor ☒ Irrigation ☐ Thermal ☐ Injection
☐ Other

5. TYPE OF WORK:
☒ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other

6. DRILL METHOD:
☐ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other Reverse Rotary

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method/procedure
Bentonite chips	0'	165'	7 Yards	Poured
Cement	165'	503.5	20 Yards	Pumped

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/ Schedule	Material	Casing	Liner	Threaded	Welded
18"	+ 2'	503	.375	Steel	☒	☐	☐	☒
10"	490'	510'	.365	Steel	☐	☒	☐	☒
10"	550'	640'	.365	Steel	☐	☒	☐	☒
10'	670'	700'	.365	Steel	☐	☒	☐	☒

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s) 800' 8'

9. PERFORATIONS/SCREENS:
Perforations ☐ Y ☒ N Method
Manufactured screen ☒ Y ☐ N Type 304 Stainless V-wire
Method of installation Lowered

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
510'	550'	.030	40'	10"	Stainless	
640'	670'	.030	30'	10"	Stainless	
700'	730'	.030	30'	10"	Stainless	

Length of Headpipe 20' Length of Tailpipe 5'
Packer ☐ Y ☐ N Type

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method
6-9 Sand	490'	785'	21,700 lbs	Poured

11. FLOWING ARTESIAN:
Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG)
Describe control device

12. STATIC WATER LEVEL and WELL TESTS:
Depth first water encountered (ft) 330 Static water level (ft) 326
Water temp. (°F) 66 Bottom hole temp. (°F)
Describe access port

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Test method: Pump	Bailer	Air	Flowing artesian
108'	1,500	1,740	☒	☐	☐	☐
			☐	☐	☐	☐

Water quality test or comments:

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water Y	Water N
24"	0'	4'	Clay topsoil		x
	4'	19'	Course cemented sand		x
	19'	230'	Clay, course sand,sandy clay		x
	230'	240'	Basalt		x
	240'	250'	Cemented sand tan		x
	250'	265'	Darker brown cemented sand		x
	265'	300'	Course cemented sand tan		x
	300'	322'	Sand stone		x
	322'	325'	Tan clay		x
	325'	330'	Sand clay		x
	330'	345'	Sand	x	
	345'	363'	Sandy clay		x
	363'	388'	Tan clay		x
	388'	405'	Cemented sand	x	
	405'	415'	Sandy clay		x
	415'	500'	Course compacted sand	x	
17"	500'	510'	Clay		x
	510'	550'	Sand and gravel	x	
	550'	580'	Clay		x
	580'	630'	Cemented finer sand	x	
	630'	643'	Clay		x
	643'	666'	Sand	x	
	666'	703'	Cemented finer sand	x	
	703'	730'	Sand	x	
	730'	750'	Blue clay		x
	750'	770'	Sand	x	
	770'	1005'	Blue, gray clay and very fine sand	x	
			Casing		
10"	730'	750'	.365 Steel Liner Welded		
10"	770'	775'	.365 Steel Liner Welded		
			Screen		
10"	750'	770'	.030 30' Stainless		

Completed Depth (Measurable): 775'
Date Started: Jun 12, 2019 Date Completed: Sep 4, 2019

14. DRILLER'S CERTIFICATION:
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.
Company Name Stevens & Sons Co. No. 153
*Principal Driller Date Sep 10, 2019
*Driller Date Sep 10, 2019
*Operator II Date
Operator I Date
* Signature of Principal Driller and rig operator are required.

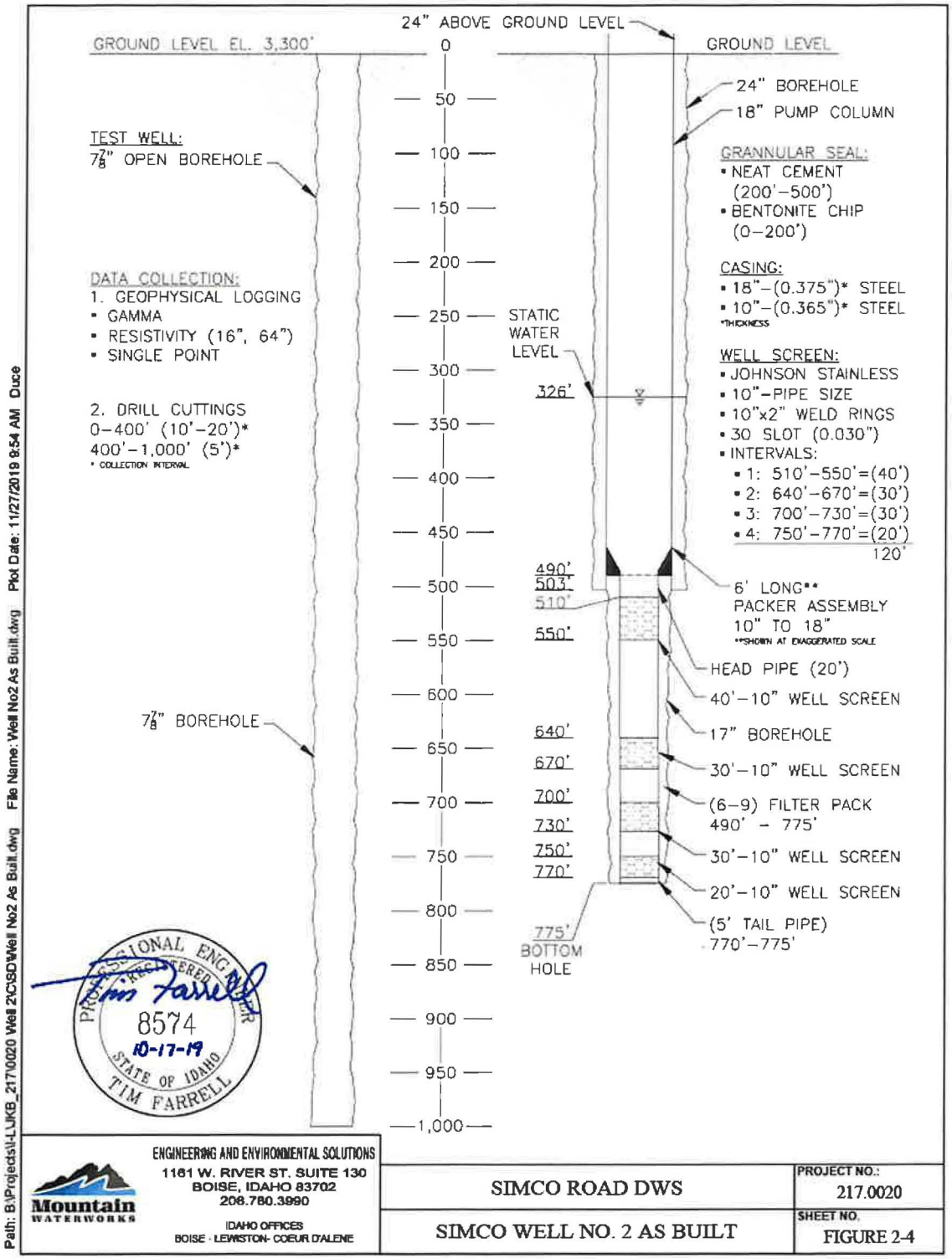
Back filled From 800' to 1005' with Bentonite & Well cuttings

Figure 2 J&M PW No. 2 (Simco Well No. 2)

Idaho Water Engineering
Water Solutions

2918 N. El Rancho Place
Boise, Idaho 83704
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Fax: (888) 538-7703



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Fax: (888) 538-7703

Form 238-7
6/07

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. WELL TAG NO. D 0073073
Drilling Permit No. 974035-880092
Water right or injection well #
2. OWNER:
Name Mike Preston
Address 420 Bitteroot
City Boise State Id. Zip 83709
3. WELL LOCATION:
Twp. 1 North ☐ or South ☒ Rge. 4 East ☒ or West ☐
Sec. 14 1/4 N.W. 1/4 S.W. 1/4
Gov't Lot County Elmore
Lat. 43 °20.157 (Deg. and Decimal minutes)
Long. 115 °57.220 (Deg. and Decimal minutes)
Address of Well Site 400' E. of Simco Road 1/2 mile S. of I84
City Mountain Home
Lot Blk. Sub. Name
4. USE:
☐ Domestic ☐ Municipal ☒ Monitor ☐ Irrigation ☐ Thermal ☐ Injection
☒ Other Test
5. TYPE OF WORK:
☒ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other
6. DRILL METHOD:
☐ Air Rotary ☒ Mud Rotary ☐ Cable ☐ Other
7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method/procedure
Cement bentoni	1,000	695'	100 cubic f	Pumped
Cement bentoni	450'	200'	60 cubic fe	Pumped

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/ Schedule	Material	Casing	Liner	Threaded	Welded
8"	1.5'	5'	.250	Steel	☒	☐	☐	☐
5"	1'	580'	sdr17	PVC	☒	☒	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s)
9. PERFORATIONS/SCREENS:
Perforations ☐ Y ☐ N Method
Manufactured screen ☒ Y ☐ N Type Slotted PVC
Method of installation Lowered

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
580'	680'	.020	100'		PVC	sdr17

Length of Headpipe Length of Tailpipe
Packer ☐ Y ☒ N Type
10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method
6-9 sand	450'	695'	3,300 lbs.	Poured

11. FLOWING ARTESIAN:
Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG)
Describe control device

12. STATIC WATER LEVEL and WELL TESTS:
Depth first water encountered (ft) 345' Static water level (ft) 345'
Water temp. (°F) cold Bottom hole temp. (°F)
Describe access port
Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Test method: Pump	Bailer	Air	Flowing artesian
480'	100	120	☐	☐	☒	☐
			☐	☐	☐	☐

Water quality test or comments:
13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water Y	Water N
12"	0'	5'	Clay soil		X
8"	5'	12'	Clay soil		X
	12'	200'	Cemented sand & gravel		X
	200'	206'	Tan clay		X
	206'	400'	Sand & gravel 345'	X	
	400'	415'	Medium to fine sand	X	
	415'	450'	Black sand	X	
	450'	480'	Course black sand	X	
	480'	505'	Quarts sand	X	
	505'	550'	Sand with thin silt/clay streaks	X	
	550'	680'	Course to fine sand	X	
	680'	755'	Very sandy clay		X
	755'	760'	Blue clay		X
	760'	1,000'	Blue gray sand	X	
	200'	0'	Bentonite chips 41 sacks		

RECEIVED
NOV 0 2 2016
WATER RESOURCES
WESTERN REGION

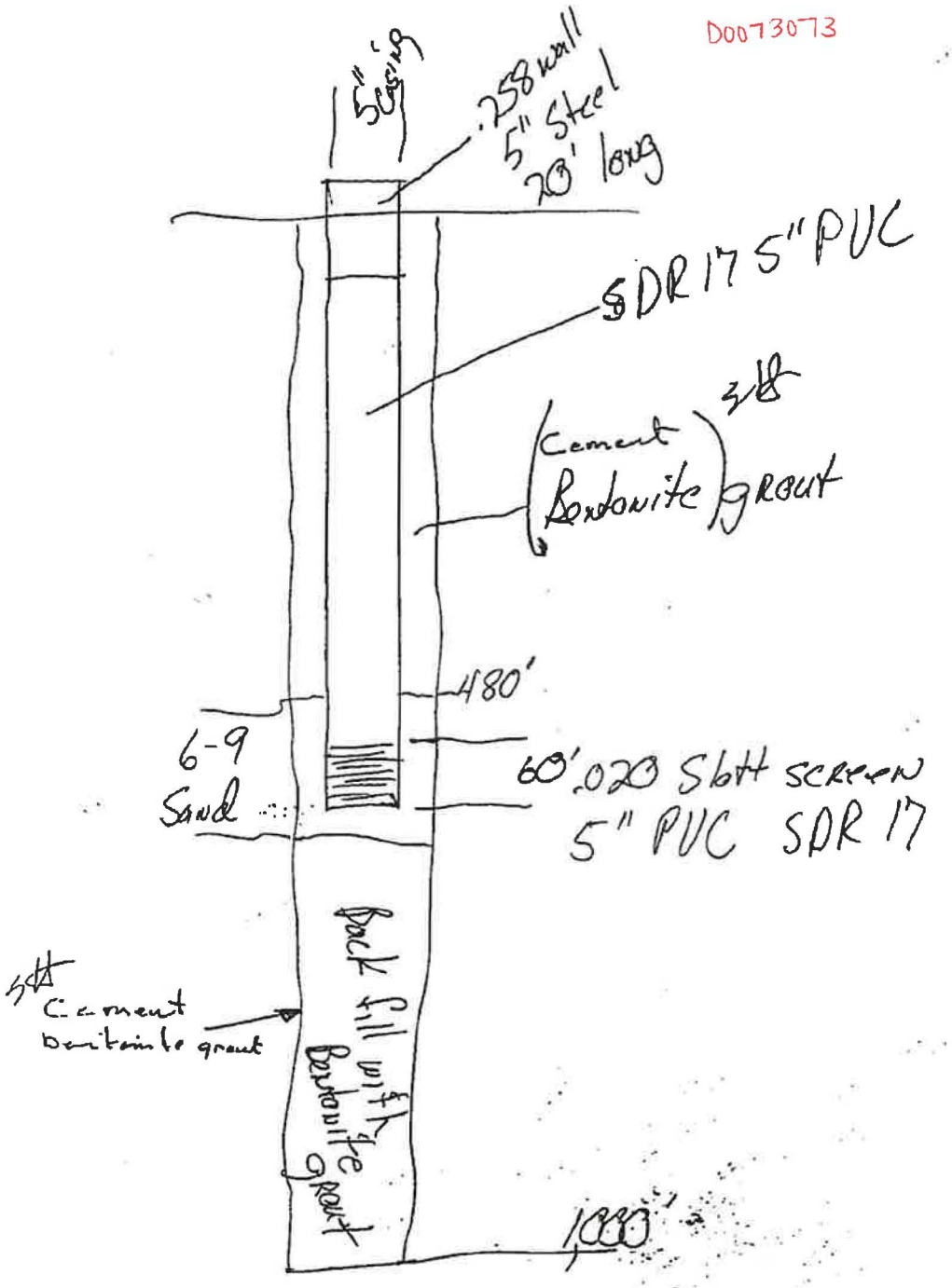
Completed Depth (Measurable) 680'
Date Started Sep 5, 2016 Date Completed Oct 19, 2016
14. DRILLER'S CERTIFICATION:
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.
Company Name Stevenson & Sons Co. No. 153
*Principal Driller Date Oct 26, 2016
*Driller Date Oct 26, 2016
*Operator II Date
Operator I Date
* Signatures of Principal Driller and rig operator are required.

Figure 3 J&M MW No. 1 (Simco Monitoring Well)

Idaho Water Engineering
Water Solutions

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Cell: (208) 870-0345
Fax: (888) 538-7703



Appendix B

Water Rights Transfer No. 78356

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

TRANSFER OF WATER RIGHT
TRANSFER NO. 78356

This is to certify that: SHEKINAH INDUSTRIES INC
ATTN: MICHAEL PRESTON
420 BITTEROOT DR
BOISE, ID 83709

has requested a change to the water right(s) listed below. This change in water right(s) is authorized pursuant to the provisions of Section 42-222, Idaho Code. A summary of the changes is also listed below. The authorized change for each affected water right, including conditions of approval, is shown on the following pages of this document.

Summary of Water Rights Before the Proposed Changes

Water Right	Origin/Basis	Priority Date	Diversion Rate	Diversion Volume	Acre Limit	Total Acres	Source
61-10378	WR/DECREED	4/30/1974	0.800 cfs	N/A	47.0	1459.0	GROUND WATER
61-2154	WR/DECREED	1/14/1963	5.440 cfs	1088.0 af	272.0	1459.0	GROUND WATER
61-2155	WR/DECREED	1/14/1963	5.860 cfs	1232.0 af	308.0	1459.0	GROUND WATER
61-7005	WR/DECREED	8/23/1967	5.240 cfs	1280.0 af	320.0	1459.0	GROUND WATER
61-7119	WR/LICENSE	7/10/1972	5.240 cfs	1048.0 af	262.0	1459.0	GROUND WATER
61-7396	WR/DECREED	1/4/1980	2.200 cfs	640.0 af	160.0	1459.0	GROUND WATER

Purpose of Transfer (Changes Proposed)

Current Number	Split	POD	POU	Add POD	Period of Use	Nature of Use
61-10378	YES	YES	YES	NO	NO	NO
61-2154	YES	YES	YES	NO	NO	NO
61-2155	YES	YES	YES	NO	NO	NO
61-7005	YES	YES	YES	NO	NO	NO
61-7119	YES	YES	YES	NO	NO	NO
61-7396	YES	YES	YES	NO	NO	NO

Summary Of Water Rights After the Approved Change

Existing Right	New No. (Changed Portion)	Transfer Rate	Transfer Volume	Acre Limit	Total Acres	New No. (remaining portion)	Remaining Rate	Remaining Volume	Remaining Acre Limit	Remaining Total Acres
61-10378	61-12283	0.240 cfs	N/A	14.0	765.0	61-10378	0.560 cfs	N/A	33.0	1459.0
61-2154	61-12284	1.620 cfs	324.0 af	81.0	765.0	61-2154	3.820 cfs	764.0 af	191.0	1459.0
61-2155	61-12285	1.730 cfs	364.0 af	91.0	765.0	61-2155	4.130 cfs	868.0 af	217.0	1459.0
61-7005	61-12281	1.560 cfs	380.0 af	95.0	765.0	61-7005	3.680 cfs	900.0 af	225.0	1459.0
61-7119	61-12280	1.560 cfs	312.0 af	78.0	765.0	61-7119	3.680 cfs	736.0 af	184.0	1459.0
61-7396	61-12282	0.650 cfs	188.0 af	47.0	765.0	61-7396	1.550 cfs	452.0 af	113.0	1459.0
COMBINED TOTALS		**5.560 cfs**	**1476.0 af**	**369.0**	**765.0**		**13.18 cfs**	**3500 af**	**875.0**	**1459.0**

SUPPORT DATA
IN FILE # 61-2154

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

TRANSFER OF WATER RIGHT
TRANSFER NO. 78356

This water right(s) is subject to all prior water rights and shall be administered in accordance with Idaho law and applicable rules of the Department of Water Resources. Detailed Water Right Description(s) attached.

Dated this 21st day of January, 2016.

for Chief, Water Allocation Bureau

WATER RIGHT NO. 61-7119

As Modified by Transfer No. 78356

In accordance with the approval of Transfer No. 78356, Water Right No. 61-7119 is now described as follows:

Right Holder: BERNARD L BROWN AND/OR
NORMA JEAN BROWN
655 E 19TH N
MOUNTAIN HOME, ID 83647

Priority Date: 7/10/1972

Source: GROUND WATER

BENEFICIAL USE	From	To	Diversion Rate	Diversion Volume
IRRIGATION	03/15	to 11/15	3.680 cfs	736.0 af
			3.680 cfs	736.0 af

LOCATION OF POINT(S) OF DIVERSION

GROUND WATER	SESESE	Sec 18 Twp 04S Rge 06E ELMORE County
GROUND WATER	L1 (SENWNW)	Sec 19 Twp 04S Rge 06E ELMORE County
GROUND WATER	SWNESW	Sec 19 Twp 04S Rge 06E ELMORE County
GROUND WATER	NWSENE	Sec 20 Twp 04S Rge 06E ELMORE County
GROUND WATER	SWNWNW	Sec 20 Twp 04S Rge 06E ELMORE County

PLACE OF USE: IRRIGATION

			NE				NW				SW				SE				
Twp	Rng	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
04S	06E	17											40.0	40.0					80.0
04S	06E	18							43.0	40.0					40.0	40.0	40.0	40.0	243.0
									L2										
04S	06E	19	40.0	40.0	40.0	40.0	40.0	44.0	44.0	40.0	40.0	44.0	44.0	40.0	40.0	40.0	40.0	40.0	656.0
								L1	L2			L3	L4						
04S	06E	20	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0					40.0	40.0	40.0	40.0	480.0

Right Acre Limit: 184.0
POU Total Acres: 1459.0

CONDITIONS OF APPROVAL

1. Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.

2. This right is limited to the irrigation of 184 acres within the place of use described above in a single irrigation season.

Transfer No. 78356

WATER RIGHT NO. 61-7119

As Modified by Transfer No. 78356

CONDITIONS OF APPROVAL

3. Rights 61-2154, 61-7119, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 5.70 cfs and the irrigation of 433 acres.

4. Rights 61-2154, 61-7005, 61-7119, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 9.06 cfs, a total annual maximum diversion volume of 2632 af at the field headgate, and the irrigation of 658 acres.

5. Rights 61-2154, 61-2155, 61-7005, 61-7119, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 13.18 cfs, a total annual maximum diversion volume of 3500 af at the field headgate, and the irrigation of 875 acres.

6. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 4.0 afa per acre at the field headgate for irrigation of the lands above.

7. This right is for the use of trust water and is subject to review 5 years after the issuance of this transfer to determine availability of water and to re-evaluate the public interest.

8. Prior to diversion of water under this approval, the right holder shall provide a means of measurement acceptable to the Department from all authorized points of diversion which will allow determination of the total rate of diversion.

9. After specific notification by the Department, the right holder shall record the quantity of water diverted or shall enter into an agreement with the Department to determine the amount of water diverted from power records and shall annually report the information to the Department.

10. The following rights are diverted through points of diversion described above: 61-2154, 61-2155, 61-7005, 61-7119, 61-7396 and 61-10378.

WATER RIGHT NO. 61-12280

As Modified by Transfer No. 78356

In accordance with the approval of Transfer No. 78356, Water Right No. 61-12280 is now described as follows:

Right Holder: SHEKINAH INDUSTRIES INC
ATTN: MICHAEL PRESTON
420 BITTEROOT DR
BOISE, ID 83709

Priority Date: 7/10/1972

Source: GROUND WATER

BENEFICIAL USE	From		To	Diversion Rate	Diversion Volume
IRRIGATION	03/15	to	11/15	1.560 cfs	312.0 af
				1.560 cfs	312.0 af

LOCATION OF POINT(S) OF DIVERSION

GROUND WATER	NWSW	Sec 14	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NESE	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NWSE	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SESE	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SWSE	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NESW	Sec 24	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NESW	Sec 14	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SESW	Sec 14	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SWSW	Sec 14	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NWNE	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SWNE	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NWSW	Sec 24	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SESW	Sec 24	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SWSW	Sec 24	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NENW	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NWNW	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SENW	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SWNW	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NESW	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NWSW	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SESW	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SWSW	Sec 23	Twp 01S	Rge 04E	ELMORE County

PLACE OF USE: IRRIGATION

			NE				NW				SW				SE				
Twp	Rng	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
01S	04E	14									40.0	40.0	40.0	40.0					160.0
01S	04E	23		7.0	7.0		40.0	22.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	476.0
01S	04E	24									12.0	40.0	40.0	37.0					129.0

Right Acre Limit: 78.0
POU Total Acres: 765.0

Transfer No. 78356

WATER RIGHT NO. 61-12280

As Modified by Transfer No. 78356

CONDITIONS OF APPROVAL

1. The right holder shall accomplish the change authorized by this transfer within five years of the date of this approval.

2. Failure of the right holder to comply with the conditions of this transfer is cause for the Director to rescind approval of the transfer.

3. Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.

4. This right does not grant any right-of-way or easement across the land of another.

5. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code and applicable Well Construction Rules of the Department.

6. Prior to diversion and use of water under this right, the right holder shall install a flow measurement and volume totalizing device of a type approved by the Department on each point of diversion to measure flow and volume of water diverted.

7. The right holder shall install or construct a straight length of conduit or ditch suitable for installation of a device for measuring the entire flow of water being diverted in connection with this right. If the right holder uses conduit, the straight length of conduit shall be at least fifteen times the diameter of the conduit and shall be above ground or otherwise easily accessible.

8. The diversion and use of water described in Transfer 78356 may be subject to additional conditions and limitations agreed to by the protestant and the right holder under a separate agreement to which the Department is not a party. Because the Department is not a party, the Department is not responsible for enforcement of any aspect of the agreement not specifically addressed in other conditions herein. Enforcement of those portions of the agreement not specifically addressed in other conditions shall be the responsibility of the protestant and the water right holder.

9. Diversion and use of water in connection with this right is subject to a Monitoring-Reporting Plan. The right holder shall provide the Department with a plan for monitoring-reporting aquifer levels, diversion flow rates, and volumes. The monitoring-reporting should occur in parallel with land development and production and should include identification of non-production wells and timelines for measuring and reporting. The right holder shall not divert water in connection with this right until the plan is approved by the Department. Failure to comply with the plan once it is accepted shall be cause for the Department to cancel or revoke the right.

10. Water rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285 shall be subordinated to 61-12090 in the event of priority administration of water rights with points of diversion within administrative Basin 61.

11. Water rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285 shall be subordinated to 63-32499 in the event of priority administration of water rights with points of diversion within administrative Basin 63.

WATER RIGHT NO. 61-12280

As Modified by Transfer No. 78356

CONDITIONS OF APPROVAL

12. This right is limited to the irrigation of 78 acres within the authorized place of use in a single irrigation season.

13. Rights 61-12280, 61-12282, 61-12283 and 61-12284 when combined shall not exceed a total diversion rate of 2.40 cfs and the irrigation of 183 acres.

14. Rights 61-12280, 61-12281, 61-12282, 61-12283 and 61-12284 when combined shall not exceed a total diversion rate of 3.82 cfs, a total annual maximum diversion volume of 1112 af at the field headgate, and the irrigation of 278 acres.

15. Rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285 when combined shall not exceed a total diversion rate of 5.56 cfs, a total annual maximum diversion volume of 1476 af, a total annual maximum consumptive use volume of 1092 af, and the irrigation of 369 acres in a single irrigation season.

16. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 4.0 afa per acre at the field headgate for irrigation of the place of use.

17. The following rights are diverted through points of diversion described above: 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285.

WATER RIGHT NO. 61-7005

As Modified by Transfer No. 78356

In accordance with the approval of Transfer No. 78356, Water Right No. 61-7005 is now described as follows:

Right Holder: BROWN FARMS LLC
764 N TROUTNER WAY
BOISE, ID 83712

Priority Date: 8/23/1967

Source: GROUND WATER

BENEFICIAL USE	From	To	Diversion Rate	Diversion Volume
IRRIGATION	3/01	to 10/15	3.680 cfs	900.0 af
			3.680 cfs	900.0 af

LOCATION OF POINT(S) OF DIVERSION

GROUND WATER	SESESE	Sec 18 Twp 04S Rge 06E ELMORE County
GROUND WATER	L1 (SENWNW)	Sec 19 Twp 04S Rge 06E ELMORE County
GROUND WATER	SWNESW	Sec 19 Twp 04S Rge 06E ELMORE County
GROUND WATER	NWSENE	Sec 20 Twp 04S Rge 06E ELMORE County
GROUND WATER	SWNWNW	Sec 20 Twp 04S Rge 06E ELMORE County

PLACE OF USE: IRRIGATION

			NE				NW				SW				SE				
Twp	Rng	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
04S	06E	17											40.0	40.0					80.0
04S	06E	18							43.0	40.0					40.0	40.0	40.0	40.0	243.0
									L2										
04S	06E	19	40.0	40.0	40.0	40.0	40.0	44.0	44.0	40.0	40.0	44.0	44.0	40.0	40.0	40.0	40.0	40.0	656.0
								L1	L2			L3	L4						
04S	06E	20	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0					40.0	40.0	40.0	40.0	480.0

Right Acre Limit: 225.0
POU Total Acres: 1459.0

CONDITIONS OF APPROVAL

1. Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.

2. This right is limited to the irrigation of 225 acres within the place of use described above in a single irrigation season.

WATER RIGHT NO. 61-7005

As Modified by Transfer No. 78356

CONDITIONS OF APPROVAL

3. Rights 61-2154, 61-7005, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 9.06 cfs, a total annual maximum diversion volume of 2248 af at the field headgate, and the irrigation of 562 acres.

4. Rights 61-2154, 61-7005, 61-7119, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 9.06 cfs, a total annual maximum diversion volume of 2632 af at the field headgate, and the irrigation of 658 acres.

5. Rights 61-2154, 61-2155, 61-7005, 61-7119, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 13.18 cfs, a total annual maximum diversion volume of 3500 af at the field headgate, and the irrigation of 875 acres.

6. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 4.0 afa per acre at the field headgate for irrigation of the lands above.

7. Prior to diversion of water under this approval, the right holder shall provide a means of measurement acceptable to the Department from all authorized points of diversion which will allow determination of the total rate of diversion.

8. After specific notification by the Department, the right holder shall record the quantity of water diverted or shall enter into an agreement with the Department to determine the amount of water diverted from power records and shall annually report the information to the Department.

9. The period of use for the irrigation described in this approval may be extended to an ending date of 11/15 provided that beneficial use of the water can be shown and other elements of the right are not exceeded. The use of water after 10/15 is subordinate to all water rights having no subordinated early or late irrigation use and a priority date earlier than 2/27/2003.

10. The following rights are diverted through points of diversion described above: 61-2154, 61-2155, 61-7005, 61-7119, 61-7396 and 61-10378.

WATER RIGHT NO. 61-12281

As Modified by Transfer No. 78356

In accordance with the approval of Transfer No. 78356, Water Right No. 61-12281 is now described as follows:

Right Holder: SHEKINAH INDUSTRIES INC
ATTN: MICHAEL PRESTON
420 BITTEROOT DR
BOISE, ID 83709

Priority Date: 8/23/1967

Source: GROUND WATER

BENEFICIAL USE	From	To	Diversion Rate	Diversion Volume
IRRIGATION	3/01	to 10/15	1.560 cfs	380.0 af
			1.560 cfs	380.0 af

LOCATION OF POINT(S) OF DIVERSION

GROUND WATER	NWSW	Sec 14 Twp 01S Rge 04E ELMORE County
GROUND WATER	NESE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWSE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SESE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWSE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NESW	Sec 24 Twp 01S Rge 04E ELMORE County
GROUND WATER	NESW	Sec 14 Twp 01S Rge 04E ELMORE County
GROUND WATER	SESW	Sec 14 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWSW	Sec 14 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWNE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWNE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWSW	Sec 24 Twp 01S Rge 04E ELMORE County
GROUND WATER	SESW	Sec 24 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWSW	Sec 24 Twp 01S Rge 04E ELMORE County
GROUND WATER	NENW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWNW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SENW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWNW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NESW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWSW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SESW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWSW	Sec 23 Twp 01S Rge 04E ELMORE County

PLACE OF USE: IRRIGATION

			NE				NW				SW				SE				
Twp	Rng	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
01S	04E	14									40.0	40.0	40.0	40.0					160.0
01S	04E	23		7.0	7.0		40.0	22.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	476.0
01S	04E	24									12.0	40.0	40.0	37.0					129.0

Right Acre Limit: 95.0
POU Total Acres: 765.0

Transfer No. 78356

WATER RIGHT NO. 61-12281

As Modified by Transfer No. 78356

CONDITIONS OF APPROVAL

1. The right holder shall accomplish the change authorized by this transfer within five years of the date of this approval.

2. Failure of the right holder to comply with the conditions of this transfer is cause for the Director to rescind approval of the transfer.

3. Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.

4. This right does not grant any right-of-way or easement across the land of another.

5. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code and applicable Well Construction Rules of the Department.

6. Prior to diversion and use of water under this right, the right holder shall install a flow measurement and volume totalizing device of a type approved by the Department on each point of diversion to measure flow and volume of water diverted.

7. The right holder shall install or construct a straight length of conduit or ditch suitable for installation of a device for measuring the entire flow of water being diverted in connection with this right. If the right holder uses conduit, the straight length of conduit shall be at least fifteen times the diameter of the conduit and shall be above ground or otherwise easily accessible.

8. The diversion and use of water described in Transfer 78356 may be subject to additional conditions and limitations agreed to by the protestant and the right holder under a separate agreement to which the Department is not a party. Because the Department is not a party, the Department is not responsible for enforcement of any aspect of the agreement not specifically addressed in other conditions herein. Enforcement of those portions of the agreement not specifically addressed in other conditions shall be the responsibility of the protestant and the water right holder.

9. Diversion and use of water in connection with this right is subject to a Monitoring-Reporting Plan. The right holder shall provide the Department with a plan for monitoring-reporting aquifer levels, diversion flow rates, and volumes. The monitoring-reporting should occur in parallel with land development and production and should include identification of non-production wells and timelines for measuring and reporting. The right holder shall not divert water in connection with this right until the plan is approved by the Department. Failure to comply with the plan once it is accepted shall be cause for the Department to cancel or revoke the right.

10. Water rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285 shall be subordinated to 61-12090 in the event of priority administration of water rights with points of diversion within administrative Basin 61.

11. Water rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285 shall be subordinated to 63-32499 in the event of priority administration of water rights with points of diversion within administrative Basin 63.

WATER RIGHT NO. 61-12281

As Modified by Transfer No. 78356

CONDITIONS OF APPROVAL

12. This right is limited to the irrigation of 95 acres within the authorized place of use in a single irrigation season.

13. Rights 61-12281, 61-12282, 61-12283 and 61-12284 when combined shall not exceed a total diversion rate of 3.82 cfs, a total annual maximum diversion volume of 948 af at the field headgate, and the irrigation of 237 acres.

14. Rights 61-12280, 61-12281, 61-12282, 61-12283 and 61-12284 when combined shall not exceed a total diversion rate of 3.82 cfs, a total annual maximum diversion volume of 1112 af at the field headgate, and the irrigation of 278 acres.

15. Rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285 when combined shall not exceed a total diversion rate of 5.56 cfs, a total annual maximum diversion volume of 1476 af, a total annual maximum consumptive use volume of 1092 af, and the irrigation of 369 acres in a single irrigation season.

16. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 4.0 afa per acre at the field headgate for irrigation of the place of use.

17. The following rights are diverted through points of diversion described above: 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285.

WATER RIGHT NO. 61-7396

As Modified by Transfer No. 78356

In accordance with the approval of Transfer No. 78356, Water Right No. 61-7396 is now described as follows:

Right Holder: BROWN FARMS LLC
764 N TROUTNER WAY
BOISE, ID 83712

Priority Date: 1/4/1980

Source: GROUND WATER

BENEFICIAL USE	From	To	Diversion Rate	Diversion Volume
IRRIGATION	3/15	to 11/15	1.550 cfs	452.0 af
			1.550 cfs	452.0 af

LOCATION OF POINT(S) OF DIVERSION

GROUND WATER	SESESE	Sec 18 Twp 04S Rge 06E ELMORE County
GROUND WATER	L1 (SENWNW)	Sec 19 Twp 04S Rge 06E ELMORE County
GROUND WATER	SWNESW	Sec 19 Twp 04S Rge 06E ELMORE County
GROUND WATER	NWSENE	Sec 20 Twp 04S Rge 06E ELMORE County
GROUND WATER	SWNWNW	Sec 20 Twp 04S Rge 06E ELMORE County

PLACE OF USE: IRRIGATION

			NE				NW				SW				SE				
Twp	Rng	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
04S	06E	17											40.0	40.0					80.0
04S	06E	18							43.0	40.0					40.0	40.0	40.0	40.0	243.0
									L2										
04S	06E	19	40.0	40.0	40.0	40.0	40.0	44.0	44.0	40.0	40.0	44.0	44.0	40.0	40.0	40.0	40.0	40.0	556.0
								L1	L2			L3	L4						
04S	06E	20	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0					40.0	40.0	40.0	40.0	480.0

Right Acre Limit: 113.0
POU Total Acres: 1459.0

CONDITIONS OF APPROVAL

1. Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.

2. This right is limited to the irrigation of 113 acres within the place of use described above in a single irrigation season.

3. Rights 61-2154, 61-7119, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 5.70 cfs and the irrigation of 433 acres.

Transfer No. 78356

WATER RIGHT NO. 61-7396

As Modified by Transfer No. 78356

CONDITIONS OF APPROVAL

4. Rights 61-2154, 61-7005, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 9.06 cfs, a total annual maximum diversion volume of 2248 af at the field headgate, and the irrigation of 562 acres.

5. Rights 61-2154, 61-7005, 61-7119, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 9.06 cfs, a total annual maximum diversion volume of 2632 af at the field headgate, and the irrigation of 658 acres.

6. Rights 61-2154, 61-2155, 61-7005, 61-7119, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 13.18 cfs, a total annual maximum diversion volume of 3500 af at the field headgate, and the irrigation of 875 acres.

7. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 4.0 afa per acre at the field headgate for irrigation of the lands above.

8. Prior to diversion of water under this approval, the right holder shall provide a means of measurement acceptable to the Department from all authorized points of diversion which will allow determination of the total rate of diversion.

9. After specific notification by the Department, the right holder shall record the quantity of water diverted or shall enter into an agreement with the Department to determine the amount of water diverted from power records and shall annually report the information to the Department.

10. The following rights are diverted through points of diversion described above: 61-2154, 61-2155, 61-7005, 61-7119, 61-7396 and 61-10378.

WATER RIGHT NO. 61-12282

As Modified by Transfer No. 78356

In accordance with the approval of Transfer No. 78356, Water Right No. 61-12282 is now described as follows:

Right Holder: SHEKINAH INDUSTRIES INC
ATTN: MICHAEL PRESTON
420 BITTEROOT DR
BOISE, ID 83709

Priority Date: 1/4/1980

Source: GROUND WATER

BENEFICIAL USE	From	To	Diversion Rate	Diversion Volume
IRRIGATION	3/15	to 11/15	0.650 cfs	188.0 af
			0.650 cfs	188.0 af

LOCATION OF POINT(S) OF DIVERSION

GROUND WATER	NWSW	Sec 14 Twp 01S Rge 04E ELMORE County
GROUND WATER	NESE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWSE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SESE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWSE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NESW	Sec 24 Twp 01S Rge 04E ELMORE County
GROUND WATER	NESW	Sec 14 Twp 01S Rge 04E ELMORE County
GROUND WATER	SESW	Sec 14 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWSW	Sec 14 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWNE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWNE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWSW	Sec 24 Twp 01S Rge 04E ELMORE County
GROUND WATER	SESW	Sec 24 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWSW	Sec 24 Twp 01S Rge 04E ELMORE County
GROUND WATER	NENW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWNW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SENW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWNW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NESW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWSW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SESW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWSW	Sec 23 Twp 01S Rge 04E ELMORE County

PLACE OF USE: IRRIGATION

			NE				NW				SW				SE				
Twp	Rng	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
01S	04E	14									40.0	40.0	40.0	40.0					160.0
01S	04E	23		7.0	7.0		40.0	22.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	476.0
01S	04E	24									12.0	40.0	40.0	37.0					129.0

Right Acre Limit: 47.0
POU Total Acres: 765.0

Transfer No. 78356

WATER RIGHT NO. 61-12282

As Modified by Transfer No. 78356

CONDITIONS OF APPROVAL

1. The right holder shall accomplish the change authorized by this transfer within five years of the date of this approval.

2. Failure of the right holder to comply with the conditions of this transfer is cause for the Director to rescind approval of the transfer.

3. Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.

4. This right does not grant any right-of-way or easement across the land of another.

5. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code and applicable Well Construction Rules of the Department.

6. Prior to diversion and use of water under this right, the right holder shall install a flow measurement and volume totalizing device of a type approved by the Department on each point of diversion to measure flow and volume of water diverted.

7. The right holder shall install or construct a straight length of conduit or ditch suitable for installation of a device for measuring the entire flow of water being diverted in connection with this right. If the right holder uses conduit, the straight length of conduit shall be at least fifteen times the diameter of the conduit and shall be above ground or otherwise easily accessible.

8. The diversion and use of water described in Transfer 78356 may be subject to additional conditions and limitations agreed to by the protestant and the right holder under a separate agreement to which the Department is not a party. Because the Department is not a party, the Department is not responsible for enforcement of any aspect of the agreement not specifically addressed in other conditions herein. Enforcement of those portions of the agreement not specifically addressed in other conditions shall be the responsibility of the protestant and the water right holder.

9. Diversion and use of water in connection with this right is subject to a Monitoring-Reporting Plan. The right holder shall provide the Department with a plan for monitoring-reporting aquifer levels, diversion flow rates, and volumes. The monitoring-reporting should occur in parallel with land development and production and should include identification of non-production wells and timelines for measuring and reporting. The right holder shall not divert water in connection with this right until the plan is approved by the Department. Failure to comply with the plan once it is accepted shall be cause for the Department to cancel or revoke the right.

10. Water rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285 shall be subordinated to 61-12090 in the event of priority administration of water rights with points of diversion within administrative Basin 61.

11. Water rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285 shall be subordinated to 63-32499 in the event of priority administration of water rights with points of diversion within administrative Basin 63.

WATER RIGHT NO. 61-12282

As Modified by Transfer No. 78356

CONDITIONS OF APPROVAL

12. This right is limited to the irrigation of 47 acres within the authorized place of use in a single irrigation season.

13. Rights 61-12280, 61-12282, 61-12283 and 61-12284 when combined shall not exceed a total diversion rate of 2.40 cfs and the irrigation of 183 acres.

14. Rights 61-12281, 61-12282, 61-12283 and 61-12284 when combined shall not exceed a total diversion rate of 3.82 cfs, a total annual maximum diversion volume of 948 af at the field headgate, and the irrigation of 237 acres.

15. Rights 61-12280, 61-12281, 61-12282, 61-12283 and 61-12284 when combined shall not exceed a total diversion rate of 3.82 cfs, a total annual maximum diversion volume of 1112 af at the field headgate, and the irrigation of 278 acres.

16. Rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285 when combined shall not exceed a total diversion rate of 5.56 cfs, a total annual maximum diversion volume of 1476 af, a total annual maximum consumptive use volume of 1092 af, and the irrigation of 369 acres in a single irrigation season.

17. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 4.0 afa per acre at the field headgate for irrigation of the place of use.

18. The following rights are diverted through points of diversion described above: 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285.

WATER RIGHT NO. 61-10378

As Modified by Transfer No. 78356

In accordance with the approval of Transfer No. 78356, Water Right No. 61-10378 is now described as follows:

Right Holder: BROWN FARMS LLC
764 N TROUTNER WAY
BOISE, ID 83712

Priority Date: 4/30/1974

Source: GROUND WATER

BENEFICIAL USE	From	To	Diversion Rate
IRRIGATION	03/15	to 11/15	0.560 cfs
			0.560 cfs

LOCATION OF POINT(S) OF DIVERSION

GROUND WATER	SESESE	Sec 18 Twp 04S Rge 06E ELMORE County
GROUND WATER	L1 (SENWNW)	Sec 19 Twp 04S Rge 06E ELMORE County
GROUND WATER	SWNESW	Sec 19 Twp 04S Rge 06E ELMORE County
GROUND WATER	NWSENE	Sec 20 Twp 04S Rge 06E ELMORE County
GROUND WATER	SWNWNW	Sec 20 Twp 04S Rge 06E ELMORE County

PLACE OF USE: IRRIGATION

			NE				NW				SW				SE				
Twp	Rng	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
04S	06E	17											40.0	40.0					80.0
04S	06E	18							43.0	40.0					40.0	40.0	40.0	40.0	243.0
									L2										
04S	06E	19	40.0	40.0	40.0	40.0	40.0	44.0	44.0	40.0	40.0	44.0	44.0	40.0	40.0	40.0	40.0	40.0	656.0
								L1	L2			L3	L4						
04S	06E	20	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0					40.0	40.0	40.0	40.0	480.0

Right Acre Limit: 33.0
POU Total Acres: 1459.0

CONDITIONS OF APPROVAL

1. Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.

2. Right 61-10378 is an enlargement of Right 61-2154 pursuant to Section 42-1426, Idaho Code.

WATER RIGHT NO. 61-10378

As Modified by Transfer No. 78356

CONDITIONS OF APPROVAL

3. This water right is subordinate to all water rights with a priority date earlier than April 12, 1994, that are not decreed as enlargements pursuant to Section 42-1426, Idaho Code. As between water rights decreed as enlargements pursuant to Section 42-1426, Idaho Code, the earlier priority right is the superior right.

4. This right is for an enlargement of 33 acres within the place of use described above.

5. Rights 61-2154 and 61-10378 when combined shall not exceed a total diversion rate of 3.83 cfs, a total annual maximum diversion volume of 896 af at the field headgate, and the irrigation of 224 acres.

6. Rights 61-2154, 61-7119, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 5.70 cfs and the irrigation of 433 acres.

7. Rights 61-2154, 61-7005, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 9.06 cfs, a total annual maximum diversion volume of 2248 af at the field headgate, and the irrigation of 562 acres.

8. Rights 61-2154, 61-7005, 61-7119, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 9.06 cfs, a total annual maximum diversion volume of 2632 af at the field headgate, and the irrigation of 658 acres.

9. Rights 61-2154, 61-2155, 61-7005, 61-7119, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 13.18 cfs, a total annual maximum diversion volume of 3500 af at the field headgate, and the irrigation of 875 acres.

10. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 4.0 afa per acre at the field headgate for irrigation of the lands above.

11. Prior to diversion of water under this approval, the right holder shall provide a means of measurement acceptable to the Department from all authorized points of diversion which will allow determination of the total rate of diversion.

12. After specific notification by the Department, the right holder shall record the quantity of water diverted or shall enter into an agreement with the Department to determine the amount of water diverted from power records and shall annually report the information to the Department.

13. The following rights are diverted through points of diversion described above: 61-2154, 61-2155, 61-7005, 61-7119, 61-7396 and 61-10378.

WATER RIGHT NO. 61-12283

As Modified by Transfer No. 78356

In accordance with the approval of Transfer No. 78356, Water Right No. 61-12283 is now described as follows:

Right Holder: SHEKINAH INDUSTRIES INC
ATTN: MICHAEL PRESTON
420 BITTEROOT DR
BOISE, ID 83709

Priority Date: 4/30/1974

Source: GROUND WATER

BENEFICIAL USE	From	To	Diversion Rate
IRRIGATION	03/15	to 11/15	0.240 cfs
			0 240 cfs

LOCATION OF POINT(S) OF DIVERSION

GROUND WATER	NWSW	Sec 14 Twp 01S Rge 04E ELMORE County
GROUND WATER	NESE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWSE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SESE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWSE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NESW	Sec 24 Twp 01S Rge 04E ELMORE County
GROUND WATER	NESW	Sec 14 Twp 01S Rge 04E ELMORE County
GROUND WATER	SESW	Sec 14 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWSW	Sec 14 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWNE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWNE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWSW	Sec 24 Twp 01S Rge 04E ELMORE County
GROUND WATER	SESW	Sec 24 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWSW	Sec 24 Twp 01S Rge 04E ELMORE County
GROUND WATER	NENW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWNW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SENW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWNW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NESW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWSW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SESW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWSW	Sec 23 Twp 01S Rge 04E ELMORE County

PLACE OF USE: IRRIGATION

			NE				NW				SW				SE				
Twp	Rng	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
01S	04E	14									40.0	40.0	40.0	40.0					160.0
01S	04E	23		7.0	7.0		40.0	22.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	476.0
01S	04E	24									12.0	40.0	40.0	37.0					129.0

Right Acre Limit: 14.0
POU Total Acres: 765.0

Transfer No. 78356

WATER RIGHT NO. 61-12283

As Modified by Transfer No. 78356

CONDITIONS OF APPROVAL

1. The right holder shall accomplish the change authorized by this transfer within five years of the date of this approval.

2. Failure of the right holder to comply with the conditions of this transfer is cause for the Director to rescind approval of the transfer.

3. Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.

4. This right does not grant any right-of-way or easement across the land of another.

5. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code and applicable Well Construction Rules of the Department.

6. Prior to diversion and use of water under this right, the right holder shall install a flow measurement and volume totalizing device of a type approved by the Department on each point of diversion to measure flow and volume of water diverted.

7. The right holder shall install or construct a straight length of conduit or ditch suitable for installation of a device for measuring the entire flow of water being diverted in connection with this right. If the right holder uses conduit, the straight length of conduit shall be at least fifteen times the diameter of the conduit and shall be above ground or otherwise easily accessible.

8. The diversion and use of water described in Transfer 78356 may be subject to additional conditions and limitations agreed to by the protestant and the right holder under a separate agreement to which the Department is not a party. Because the Department is not a party, the Department is not responsible for enforcement of any aspect of the agreement not specifically addressed in other conditions herein. Enforcement of those portions of the agreement not specifically addressed in other conditions shall be the responsibility of the protestant and the water right holder.

9. Diversion and use of water in connection with this right is subject to a Monitoring-Reporting Plan. The right holder shall provide the Department with a plan for monitoring-reporting aquifer levels, diversion flow rates, and volumes. The monitoring-reporting should occur in parallel with land development and production and should include identification of non-production wells and timelines for measuring and reporting. The right holder shall not divert water in connection with this right until the plan is approved by the Department. Failure to comply with the plan once it is accepted shall be cause for the Department to cancel or revoke the right.

10. Water rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285 shall be subordinated to 61-12090 in the event of priority administration of water rights with points of diversion within administrative Basin 61.

11. Water rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285 shall be subordinated to 63-32499 in the event of priority administration of water rights with points of diversion within administrative Basin 63.

12. This right is for an enlargement of 14 acres within the place of use described above.

WATER RIGHT NO. 61-12283

As Modified by Transfer No. 78356

CONDITIONS OF APPROVAL

13. Right 61-12283 is an enlargement of Right 61-12284 pursuant to Section 42-1426, Idaho Code.

14. This water right is subordinate to all water rights with a priority date earlier than April 12, 1994, that are not decreed as enlargements pursuant to Section 42-1426, Idaho Code. As between water rights decreed as enlargements pursuant to Section 42-1426, Idaho Code, the earlier priority right is the superior right.

15. Rights 61-12283 and 61-12284 when combined shall not exceed a total diversion rate of 1.61 cfs, a total annual maximum diversion volume of 380 af at the field headgate, and the irrigation of 95 acres.

16. Rights 61-12280, 61-12282, 61-12283 and 61-12284 when combined shall not exceed a total diversion rate of 2.40 cfs and the irrigation of 183 acres.

17. Rights 61-12281, 61-12282, 61-12283 and 61-12284 when combined shall not exceed a total diversion rate of 3.82 cfs, a total annual maximum diversion volume of 948 af at the field headgate, and the irrigation of 237 acres.

18. Rights 61-12280, 61-12281, 61-12282, 61-12283 and 61-12284 when combined shall not exceed a total diversion rate of 3.82 cfs, a total annual maximum diversion volume of 1112 af at the field headgate, and the irrigation of 278 acres.

19. Rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285 when combined shall not exceed a total diversion rate of 5.56 cfs, a total annual maximum diversion volume of 1476 af, a total annual maximum consumptive use volume of 1092 af, and the irrigation of 369 acres in a single irrigation season.

20. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 4.0 afa per acre at the field headgate for irrigation of the place of use.

21. The following rights are diverted through points of diversion described above: 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285.

WATER RIGHT NO. 61-2154

As Modified by Transfer No. 78356

In accordance with the approval of Transfer No. 78356, Water Right No. 61-2154 is now described as follows:

Right Holder: BROWN FARMS LLC
764 N TROUTNER WAY
BOISE, ID 83712

Priority Date: 1/14/1963

Source: GROUND WATER

BENEFICIAL USE	From	To	Diversion Rate	Diversion Volume
IRRIGATION	3/15	to 11/15	3.820 cfs	764.0 af
			3.820 cfs	764.0 af

LOCATION OF POINT(S) OF DIVERSION

GROUND WATER	SESESE	Sec 18 Twp 04S Rge 06E ELMORE County
GROUND WATER	L1 (SENWNW)	Sec 19 Twp 04S Rge 06E ELMORE County
GROUND WATER	SWNESW	Sec 19 Twp 04S Rge 06E ELMORE County
GROUND WATER	NWSENE	Sec 20 Twp 04S Rge 06E ELMORE County
GROUND WATER	SWNWNW	Sec 20 Twp 04S Rge 06E ELMORE County

PLACE OF USE: IRRIGATION

			NE				NW				SW				SE				
Twp	Rng	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
04S	06E	17											40.0	40.0					80.0
04S	06E	18							43.0	40.0					40.0	40.0	40.0	40.0	243.0
									L2										
04S	06E	19	40.0	40.0	40.0	40.0	40.0	44.0	44.0	40.0	40.0	44.0	44.0	40.0	40.0	40.0	40.0	40.0	656.0
								L1	L2			L3	L4						
04S	06E	20	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0					40.0	40.0	40.0	40.0	480.0

Right Acre Limit: 191.0
POU Total Acres: 1459.0

CONDITIONS OF APPROVAL

1. Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.

2. This right is limited to the irrigation of 191 acres within the place of use described above in a single irrigation season.

3. Right 61-10378 is an enlargement of Right 61-2154 pursuant to Section 42-1426, Idaho Code.

Transfer No. 78356

WATER RIGHT NO. 61-2154

As Modified by Transfer No. 78356

CONDITIONS OF APPROVAL

4. Rights 61-2154 and 61-10378 when combined shall not exceed a total diversion rate of 3.83 cfs, a total annual maximum diversion volume of 896 af at the field headgate, and the irrigation of 224 acres.

5. Rights 61-2154, 61-7119, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 5.70 cfs and the irrigation of 433 acres.

6. Rights 61-2154, 61-7005, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 9.06 cfs, a total annual maximum diversion volume of 2248 af at the field headgate, and the irrigation of 562 acres.

7. Rights 61-2154, 61-7005, 61-7119, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 9.06 cfs, a total annual maximum diversion volume of 2632 af at the field headgate, and the irrigation of 658 acres.

8. Rights 61-2154, 61-2155, 61-7005, 61-7119, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 13.18 cfs, a total annual maximum diversion volume of 3500 af at the field headgate, and the irrigation of 875 acres.

9. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 4.0 afa per acre at the field headgate for irrigation of the lands above.

10. Prior to diversion of water under this approval, the right holder shall provide a means of measurement acceptable to the Department from all authorized points of diversion which will allow determination of the total rate of diversion.

11. After specific notification by the Department, the right holder shall record the quantity of water diverted or shall enter into an agreement with the Department to determine the amount of water diverted from power records and shall annually report the information to the Department.

12. The following rights are diverted through points of diversion described above: 61-2154, 61-2155, 61-7005, 61-7119, 61-7396 and 61-10378.

WATER RIGHT NO. 61-12284

As Modified by Transfer No. 78356

In accordance with the approval of Transfer No. 78356, Water Right No. 61-12284 is now described as follows:

Right Holder: SHEKINAH INDUSTRIES INC
ATTN: MICHAEL PRESTON
420 BITTEROOT DR
BOISE, ID 83709

Priority Date: 1/14/1963

Source: GROUND WATER

BENEFICIAL USE	From		To	Diversion Rate	Diversion Volume
IRRIGATION	3/15	to	11/15	1.620 cfs	324.0 af
				1.620 cfs	324.0 af

LOCATION OF POINT(S) OF DIVERSION

GROUND WATER	NWSW	Sec 14	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NESE	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NWSE	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SESE	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SWSE	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NESW	Sec 24	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NESW	Sec 14	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SESW	Sec 14	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SWSW	Sec 14	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NWNE	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SWNE	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NWSW	Sec 24	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SESW	Sec 24	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SWSW	Sec 24	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NENW	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NWNW	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SENW	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SWNW	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NESW	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	NWSW	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SESW	Sec 23	Twp 01S	Rge 04E	ELMORE County
GROUND WATER	SWSW	Sec 23	Twp 01S	Rge 04E	ELMORE County

PLACE OF USE: IRRIGATION

			NE				NW				SW				SE				
Twp	Rng	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
01S	04E	14									40.0	40.0	40.0	40.0					160.0
01S	04E	23		7.0	7.0		40.0	22.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	476.0
01S	04E	24									12.0	40.0	40.0	37.0					129.0

Right Acre Limit: 81.0
POU Total Acres: 765.0

Transfer No. 78356

WATER RIGHT NO. 61-12284

As Modified by Transfer No. 78356

CONDITIONS OF APPROVAL

1. The right holder shall accomplish the change authorized by this transfer within five years of the date of this approval.

2. Failure of the right holder to comply with the conditions of this transfer is cause for the Director to rescind approval of the transfer.

3. Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.

4. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code and applicable Well Construction Rules of the Department.

5. This right does not grant any right-of-way or easement across the land of another.

6. Prior to diversion and use of water under this right, the right holder shall install a flow measurement and volume totalizing device of a type approved by the Department on each point of diversion to measure flow and volume of water diverted.

7. The right holder shall install or construct a straight length of conduit or ditch suitable for installation of a device for measuring the entire flow of water being diverted in connection with this right. If the right holder uses conduit, the straight length of conduit shall be at least fifteen times the diameter of the conduit and shall be above ground or otherwise easily accessible.

8. The diversion and use of water described in Transfer 78356 may be subject to additional conditions and limitations agreed to by the protestant and the right holder under a separate agreement to which the Department is not a party. Because the Department is not a party, the Department is not responsible for enforcement of any aspect of the agreement not specifically addressed in other conditions herein. Enforcement of those portions of the agreement not specifically addressed in other conditions shall be the responsibility of the protestant and the water right holder.

9. Diversion and use of water in connection with this right is subject to a Monitoring-Reporting Plan. The right holder shall provide the Department with a plan for monitoring-reporting aquifer levels, diversion flow rates, and volumes. The monitoring-reporting should occur in parallel with land development and production and should include identification of non-production wells and timelines for measuring and reporting. The right holder shall not divert water in connection with this right until the plan is approved by the Department. Failure to comply with the plan once it is accepted shall be cause for the Department to cancel or revoke the right.

10. Water rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285 shall be subordinated to 61-12090 in the event of priority administration of water rights with points of diversion within administrative Basin 61.

11. Water rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285 shall be subordinated to 63-32499 in the event of priority administration of water rights with points of diversion within administrative Basin 63.

WATER RIGHT NO. 61-12284

As Modified by Transfer No. 78356

CONDITIONS OF APPROVAL

12. This right is limited to the irrigation of 81 acres within the authorized place of use in a single irrigation season.

13. Right 61-12283 is an enlargement of Right 61-12284 pursuant to Section 42-1426, Idaho Code.

14. Rights 61-12283 and 61-12284 when combined shall not exceed a total diversion rate of 1.61 cfs, a total annual maximum diversion volume of 380 af at the field headgate, and the irrigation of 95 acres.

15. Rights 61-12280, 61-12282, 61-12283 and 61-12284 when combined shall not exceed a total diversion rate of 2.40 cfs and the irrigation of 183 acres.

16. Rights 61-12281, 61-12282, 61-12283 and 61-12284 when combined shall not exceed a total diversion rate of 3.82 cfs, a total annual maximum diversion volume of 948 af at the field headgate, and the irrigation of 237 acres.

17. Rights 61-12280, 61-12281, 61-12282, 61-12283 and 61-12284 when combined shall not exceed a total diversion rate of 3.82 cfs, a total annual maximum diversion volume of 1112 af at the field headgate, and the irrigation of 278 acres.

18. Rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285 when combined shall not exceed a total diversion rate of 5.56 cfs, a total annual maximum diversion volume of 1476 af, a total annual maximum consumptive use volume of 1092 af, and the irrigation of 369 acres in a single irrigation season.

19. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 4.0 afa per acre at the field headgate for irrigation of the place of use.

20. The following rights are diverted through points of diversion described above: 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285.

WATER RIGHT NO. 61-2155

As Modified by Transfer No. 78356

In accordance with the approval of Transfer No. 78356, Water Right No. 61-2155 is now described as follows:

Right Holder: BROWN FARMS LLC
764 N TROUTNER WAY
BOISE, ID 83712

Priority Date: 1/14/1963

Source: GROUND WATER

BENEFICIAL USE	From	To	Diversion Rate	Diversion Volume
IRRIGATION	04/01	to 10/31	4.130 cfs	868.0 af
			4.130 cfs	868.0 af

LOCATION OF POINT(S) OF DIVERSION

GROUND WATER	SESESE	Sec 18 Twp 04S Rge 06E ELMORE County
GROUND WATER	L1 (SENWNW)	Sec 19 Twp 04S Rge 06E ELMORE County
GROUND WATER	SWNESW	Sec 19 Twp 04S Rge 06E ELMORE County
GROUND WATER	NWSENE	Sec 20 Twp 04S Rge 06E ELMORE County
GROUND WATER	SWNWNW	Sec 20 Twp 04S Rge 06E ELMORE County

PLACE OF USE: IRRIGATION

			NE				NW				SW				SE				
Twp	Rng	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
04S	06E	17											40.0	40.0					80.0
04S	06E	18							43.0	40.0					40.0	40.0	40.0	40.0	243.0
									L 2										
04S	06E	19	40.0	40.0	40.0	40.0	40.0	44.0	44.0	40.0	40.0	44.0	44.0	40.0	40.0	40.0	40.0	40.0	656.0
								L 1	L 2			L 3	L 4						
04S	06E	20	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0					40.0	40.0	40.0	40.0	480.0

Right Acre Limit: 217.0
POU Total Acres: 1459.0

CONDITIONS OF APPROVAL

1. Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.

2. This right is limited to the irrigation of 217 acres within the place of use described above in a single irrigation season.

WATER RIGHT NO. 61-2155

As Modified by Transfer No. 78356

CONDITIONS OF APPROVAL

3. Rights 61-2154, 61-2155, 61-7005, 61-7119, 61-7396 and 61-10378 when combined shall not exceed a total diversion rate of 13.18 cfs, a total annual maximum diversion volume of 3500 af at the field headgate, and the irrigation of 875 acres.

4. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 4.0 afa per acre at the field headgate for irrigation of the lands above.

5. Prior to diversion of water under this approval, the right holder shall provide a means of measurement acceptable to the Department from all authorized points of diversion which will allow determination of the total rate of diversion.

6. After specific notification by the Department, the right holder shall record the quantity of water diverted or shall enter into an agreement with the Department to determine the amount of water diverted from power records and shall annually report the information to the Department.

7. The period of use for the irrigation described in this approval may be extended to a beginning date of 3/15 and an ending date of 11/15 provided that beneficial use of the water can be shown and other elements of the right are not exceeded. The use of water before 4/1 and after 10/31 is subordinate to all water rights having no subordinated early or late irrigation use and a priority date earlier than 10/26/2000.

8. The following rights are diverted through points of diversion described above: 61-2154, 61-2155, 61-7005, 61-7119, 61-7396 and 61-10378.

WATER RIGHT NO. 61-12285

As Modified by Transfer No. 78356

In accordance with the approval of Transfer No. 78356, Water Right No. 61-12285 is now described as follows:

Right Holder: SHEKINAH INDUSTRIES INC
ATTN: MICHAEL PRESTON
420 BITTEROOT DR
BOISE, ID 83709

Priority Date: 1/14/1963

Source: GROUND WATER

BENEFICIAL USE	From	To	Diversion Rate	Diversion Volume
IRRIGATION	04/01	to 10/31	1.730 cfs	364.0 af
			1.730 cfs	364.0 af

LOCATION OF POINT(S) OF DIVERSION

GROUND WATER	NWSW	Sec 14 Twp 01S Rge 04E ELMORE County
GROUND WATER	NESE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWSE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SESE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWSE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NESW	Sec 24 Twp 01S Rge 04E ELMORE County
GROUND WATER	NESW	Sec 14 Twp 01S Rge 04E ELMORE County
GROUND WATER	SESW	Sec 14 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWSW	Sec 14 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWNE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWNE	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWSW	Sec 24 Twp 01S Rge 04E ELMORE County
GROUND WATER	SESW	Sec 24 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWSW	Sec 24 Twp 01S Rge 04E ELMORE County
GROUND WATER	NENW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWNW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SENW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWNW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NESW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	NWSW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SESW	Sec 23 Twp 01S Rge 04E ELMORE County
GROUND WATER	SWSW	Sec 23 Twp 01S Rge 04E ELMORE County

PLACE OF USE: IRRIGATION

			NE				NW				SW				SE				
Twp	Rng	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
01S	04E	14									40.0	40.0	40.0	40.0					160.0
01S	04E	23		7.0	7.0		40.0	22.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	476.0
01S	04E	24									12.0	40.0	40.0	37.0					129.0

Right Acre Limit: 91.0
POU Total Acres: 765.0

Transfer No. 78356

WATER RIGHT NO. 61-12285

As Modified by Transfer No. 78356

CONDITIONS OF APPROVAL

1. The right holder shall accomplish the change authorized by this transfer within five years of the date of this approval.

2. Failure of the right holder to comply with the conditions of this transfer is cause for the Director to rescind approval of the transfer.

3. Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.

4. This right does not grant any right-of-way or easement across the land of another.

5. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code and applicable Well Construction Rules of the Department.

6. Prior to diversion and use of water under this right, the right holder shall install a flow measurement and volume totalizing device of a type approved by the Department on each point of diversion to measure flow and volume of water diverted.

7. The right holder shall install or construct a straight length of conduit or ditch suitable for installation of a device for measuring the entire flow of water being diverted in connection with this right. If the right holder uses conduit, the straight length of conduit shall be at least fifteen times the diameter of the conduit and shall be above ground or otherwise easily accessible.

8. The diversion and use of water described in Transfer 78356 may be subject to additional conditions and limitations agreed to by the protestant and the right holder under a separate agreement to which the Department is not a party. Because the Department is not a party, the Department is not responsible for enforcement of any aspect of the agreement not specifically addressed in other conditions herein. Enforcement of those portions of the agreement not specifically addressed in other conditions shall be the responsibility of the protestant and the water right holder.

9. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 4.0 afa per acre at the field headgate for irrigation of the place of use.

10. Diversion and use of water in connection with this right is subject to a Monitoring-Reporting Plan. The right holder shall provide the Department with a plan for monitoring-reporting aquifer levels, diversion flow rates, and volumes. The monitoring-reporting should occur in parallel with land development and production and should include identification of non-production wells and timelines for measuring and reporting. The right holder shall not divert water in connection with this right until the plan is approved by the Department. Failure to comply with the plan once it is accepted shall be cause for the Department to cancel or revoke the right.

11. Water rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285 shall be subordinated to 61-12090 in the event of priority administration of water rights with points of diversion within administrative Basin 61.

WATER RIGHT NO. 61-12285

As Modified by Transfer No. 78356

CONDITIONS OF APPROVAL

12. Water rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285 shall be subordinated to 63-32499 in the event of priority administration of water rights with points of diversion within administrative Basin 63.

13. This right is limited to the irrigation of 91 acres within the authorized place of use in a single irrigation season.

14. Rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285 when combined shall not exceed a total diversion rate of 5.56 cfs, a total annual maximum diversion volume of 1476 af, a total annual maximum consumptive use volume of 1092 af, and the irrigation of 369 acres in a single irrigation season.

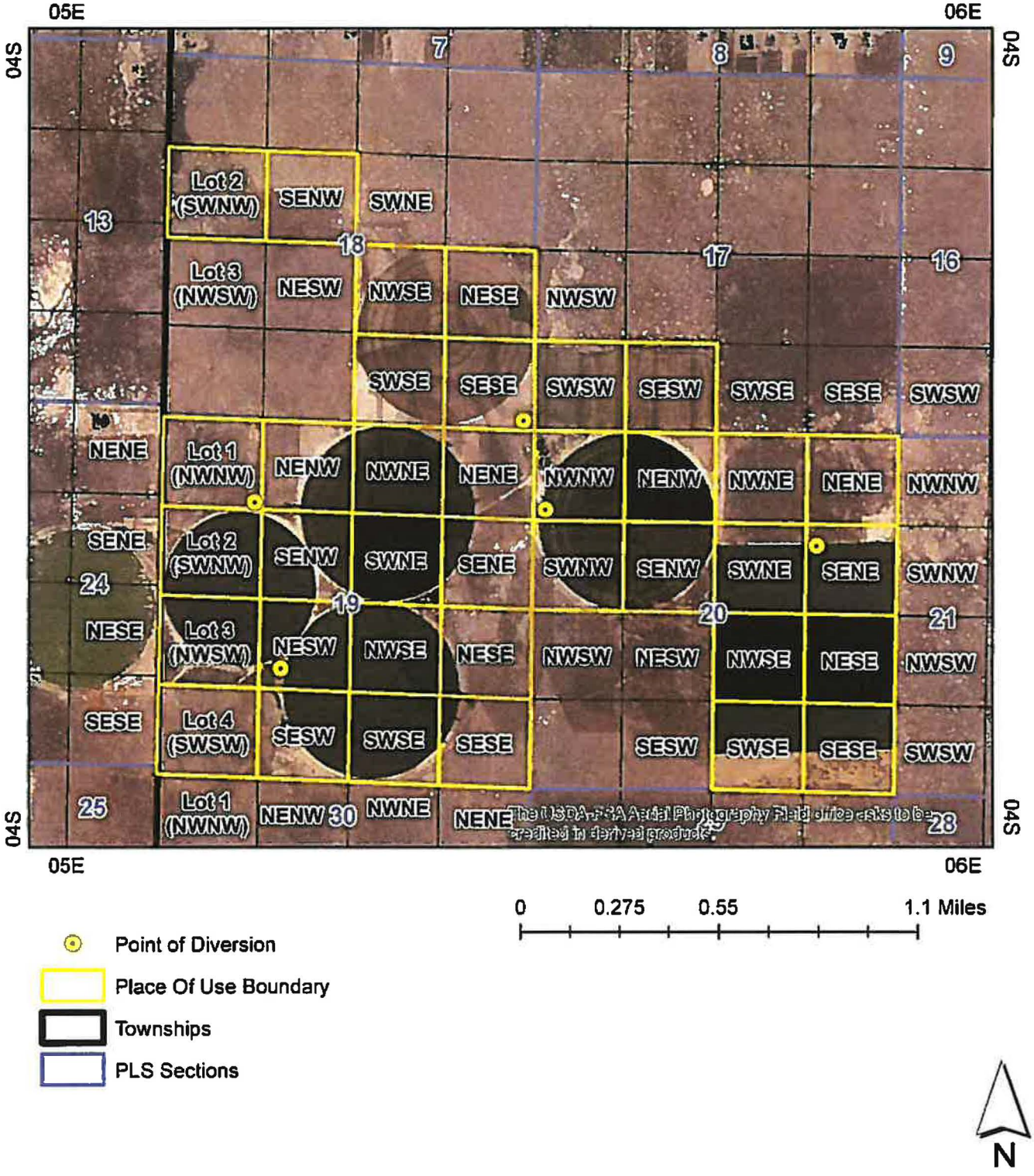
15. The following rights are diverted through points of diversion described above: 61-12280, 61-12281, 61-12282, 61-12283, 61-12284 and 61-12285.

State of Idaho
Department of Water Resources

Attachment to Transfer No. 78356

61-7119, 61-7005, 61-7396, 61-10378, 61-2154, and 61-2155

This map depicts the IRRIGATION place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.

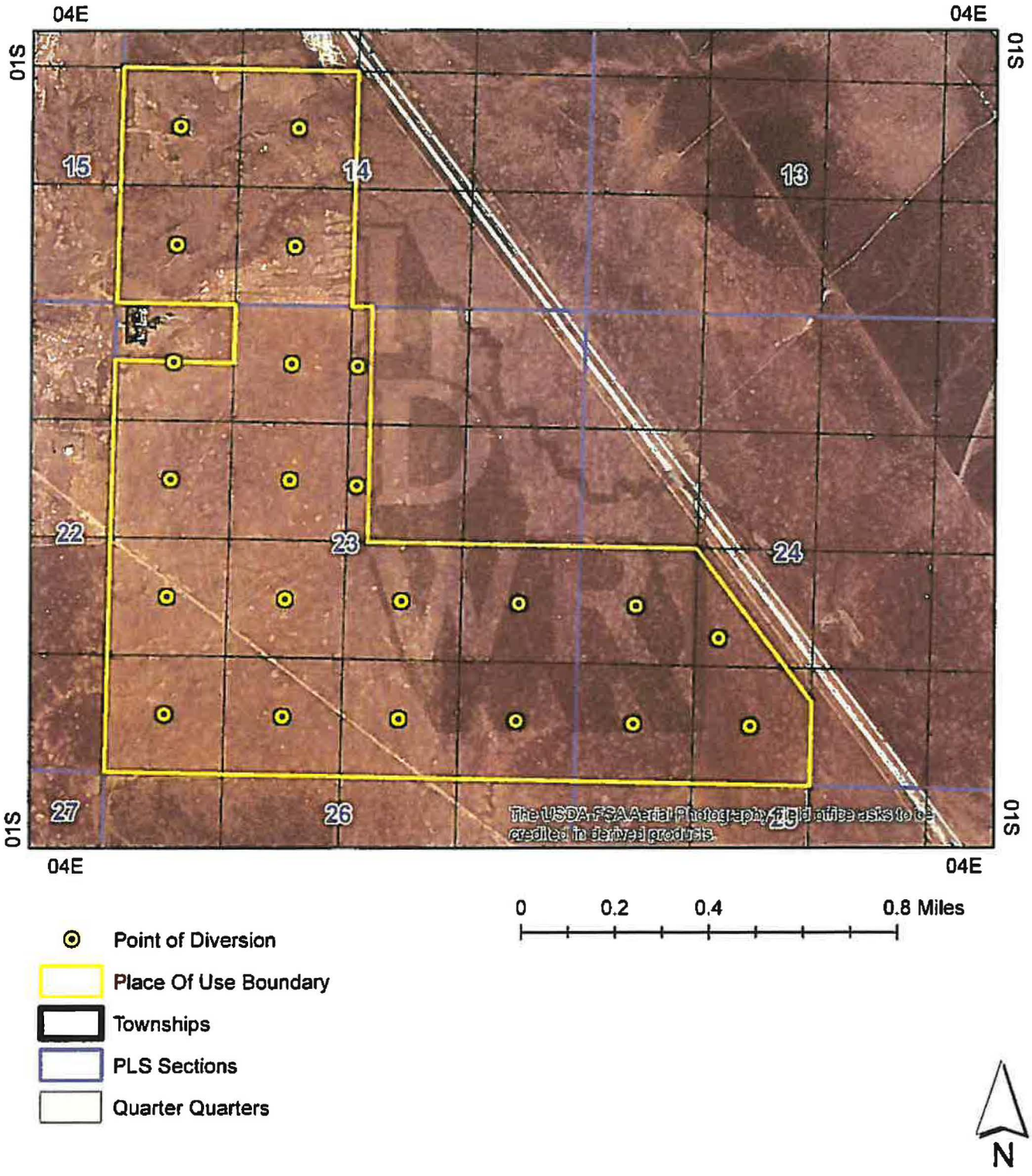


State of Idaho
Department of Water Resources

Attachment to Transfer No. 78356

61-12280, 61-12281, 61-12282, 61-12283, 61-12284, and 61-12285

This map depicts the IRRIGATION place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.



State of Idaho
DEPARTMENT OF WATER RESOURCES
Western Region, 2735 Airport Way • Boise, Idaho 83705-5082
Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

C. L. "BUTCH" OTTER
Governor
GARY SPACKMAN
Director

January 21, 2016

SHEKINAH INDUSTRIES INC
ATTN: MICHAEL PRESTON
420 BITTEROOT DR
BOISE ID 83709

Re: Transfer No: 78356
Water Right No(s).: 61-2154, 61-2155, 61-7005, 61-7119, 61-7396, 61-10378

Transfer Approval Notice

Dear Water Right Holder <and other Interested Persons>:

The Department of Water Resources has issued the enclosed approved Transfer of Water Right(s). Please be sure to thoroughly review the conditions of approval and remarks listed on the approval document.

The Transfer of Water Right(s) is a PRELIMINARY ORDER issued by the Department pursuant to section 67-5243, Idaho Code. It can and will become a final order without further action by the Department unless the APPLICANT petitions for reconsideration or files an exception and/or brief within fourteen (14) days of the service date as described in the enclosed information sheet.

ANY PERSON aggrieved by any decision, determination, order or action of the Department and who has not previously been afforded an opportunity for a hearing on the matter may request a hearing pursuant to section 42-1701A(3), Idaho Code. A written petition contesting the action of the Department and requesting a hearing shall be filed within fifteen (15) days after receipt of the denial or conditional approval.

If the transfer approval includes a condition requiring measuring and recording devices, such devices shall comply with specifications established by the Department Detailed specifications are available on the Department's home page on the Internet, or you can request a copy by contacting any office of the Department. Please be sure to thoroughly review the specifications to avoid unnecessary costs for reinstallation or modification due to non-conforming or improperly installed devices.

Please note that water right owners are required to report any change of water right ownership and/or mailing address to the Department within 120 days of the change. Failure to report these changes could result in a $100 late filing fee. Contact any office of the Department or visit the Department's homepage on the Internet to obtain the proper forms and instructions.

If you have any questions, please contact me at (208)334-2190.

Sincerely,

Rachel Neely for:

Nick Miller

Western Regional Manager

Enclosure

CC:

GIVENS PURSLEY LLP
MICHAEL C CREAMER
PO BOX 2720
BOISE ID 83701-2720

MAYFIELD TOWNSITE LLC
11204 N. BAR 21 DRIVE
GLENNS FERRY ID 83623

G3 LLC
ATTN: CRAIG HAYNES
2136 E LEWANDOWSKI LN
BOISE ID 83716

CITY OF MOUNTAIN HOME
ATTN WAYNE SHEPHERD
PO BOX 10
MOUNTAIN HOME ID 83647

NEVID LLC
NORMAN M SEMANKO
ATTORNEY AT LAW
PO BOX 829
BOISE ID 83701-0829

BRUCE M SMITH ATTORNEY AT LAW
950 W BANNNOCK ST STE 520
BOISE ID 83702

JOHN MARSHALL LAW PLLC
ATTN JOHN MARSHALL
575 W BANNOCK ST STE B
BOISE ID 83702

CERTIFICATE OF SERVICE

I hereby certify that on January 21, 2016 I mailed a true and correct copy, postage prepaid, of the foregoing TRANSFER APPROVAL to the person(s) listed below:

Re: Transfer No.: 78356
Water Right No(s).: 61-2154, 61-2155, 61-7005, 61-7119, 61-7396, 61-10378

SHEKINAH INDUSTRIES INC
ATTN: MICHAEL PRESTON
420 BITTEROOT DR
BOISE ID 83709

MAYFIELD TOWNSITE LLC
11204 N. BAR 21 DRIVE
GLENNS FERRY ID 83623

G3 LLC
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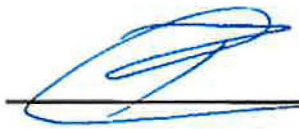
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950 W BANNNOCK ST STE 520
BOISE ID 83702

JOHN MARSHALL LAW PLLC
ATTN JOHN MARSHALL
575 W BANNOCK ST STE B
BOISE ID 83702



Rachel Neely
Administrative Assistant

EXPLANATORY INFORMATION TO ACCOMPANY A PRELIMINARY ORDER

(To be used in connection with actions when a hearing was **not** held)

(Required by Rule of Procedure 730.02)

The accompanying order or approved document is a "**Preliminary Order**" issued by the department pursuant to section 67-5243, Idaho Code. **It can and will become a final order without further action of the Department of Water Resources ("department") unless a party petitions for reconsideration, files an exception and brief, or requests a hearing as further described below:**

PETITION FOR RECONSIDERATION

Any party may file a petition for reconsideration of a preliminary order with the department within fourteen (14) days of the service date of this order. **Note: the petition must be received by the department within this fourteen (14) day period.** The department will act on a petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law. See Section 67-5243(3) Idaho Code.

EXCEPTIONS AND BRIEFS

Within fourteen (14) days after: (a) the service date of a preliminary order, (b) the service date of a denial of a petition for reconsideration from this preliminary order, or (c) the failure within twenty-one (21) days to grant or deny a petition for reconsideration from this preliminary order, any party may in writing support or take exceptions to any part of a preliminary order and may file briefs in support of the party's position on any issue in the proceeding with the Director. Otherwise, this preliminary order will become a final order of the agency.

REQUEST FOR HEARING

Unless a right to a hearing before the Department or the Water Resource Board is otherwise provided by statute, any person aggrieved by any final decision, determination, order or action of the Director of the Department and who has not previously been afforded an opportunity for a hearing on the matter may request a hearing pursuant to section 42-1701A(3), Idaho Code. A written petition contesting the action of the Director and requesting a hearing shall be filed within fifteen (15) days after receipt of the denial or conditional approval.

ORAL ARGUMENT

If the Director grants a petition to review the preliminary order, the Director shall allow all parties an opportunity to file briefs in support of or taking exceptions to the preliminary order and may schedule oral argument in the matter before issuing a final order. If oral arguments are to be heard, the Director will within a reasonable time period notify each party of the place, date and hour for the argument of the case. Unless the Director orders otherwise, all oral arguments will be heard in Boise, Idaho.

CERTIFICATE OF SERVICE

All exceptions, briefs, requests for oral argument and any other matters filed with the Director in connection with the preliminary order shall be served on all other parties to the proceedings in accordance with IDAPA Rules 37.01.01302 and 37.01.01303 (Rules of Procedure 302 and 303).

FINAL ORDER

The Director will issue a final order within fifty-six (56) days of receipt of the written briefs, oral argument or response to briefs, whichever is later, unless waived by the parties or for good cause shown. The Director may remand the matter for further evidentiary hearings if further factual development of the record is necessary before issuing a final order. The department will serve a copy of the final order on all parties of record.

Section 67-5246(5), Idaho Code, provides as follows:

> Unless a different date is stated in a final order, the order is effective fourteen (14) days after its service date if a party has not filed a petition for reconsideration. If a party has filed a petition for reconsideration with the agency head, the final order becomes effective when:
>
> (a) The petition for reconsideration is disposed of; or
> (b) The petition is deemed denied because the agency head did not dispose of the petition within twenty-one (21) days.

APPEAL OF FINAL ORDER TO DISTRICT COURT

Pursuant to sections 67-5270 and 67-5272, Idaho Code, if this preliminary order becomes final, any party aggrieved by the final order or orders previously issued in this case may appeal the final order and all previously issued orders in this case to district court by filing a petition in the district court of the county in which:

i. A hearing was held.
ii. The final agency action was taken.
iii. The party seeking review of the order resides, or
iv. The real property or personal property that was the subject of the agency action is located.

The appeal must be filed within twenty-eight (28) days of this preliminary order becoming final. See section 67-5273, Idaho Code. The filing of an appeal to district court does not itself stay the effectiveness or enforcement of the order under appeal.

Appendix C

Plan of Operation

Mountain WATERWORKS

SIMCO ROAD GROUNDWATER MONITORING PLAN OF OPERATION

Job No. 999.217

Water Right No. 78356

Monitoring Well (J&M MW No. 1), J&M PW. No. 1 (D0080123), J&M PW No. 2 (D0082843)

BACKGROUND INFORMATION

Water right No. 78356 was approved by the Idaho Department of Water Resources (IDWR) on January 21, 2016. The approved transfer included six water rights 61-12280, 61-12281, 61-12282, 61-12283, 61-12284, and 61-12285. Two new groundwater wells and a monitoring well were drilled on land owned by J&M Solid Rock during 2018 and 2019. These two wells are the initial points of diversion under the new water rights. The wells are identified as J&M PW No. 1 (D0080123), J&M PW No. 2 (D0082843), and J&M MW No. 1. The water rights allow for diversion of up to 1,476 acre-feet annually at a maximum diversion rate of 5.560 cfs. The water will be used for irrigation of 369-acres within the approved place of use.

A Condition of Approval for the water right transfer was that "the diversion and use in connection with the water right is subject to a Monitoring-Reporting Plan." As part of compliance with the water right, this document summarizes the monitoring requirements and procedures for the Simco Road Wells.

MONITORING REQUIREMENTS

The final design and set up of each well is shown for reference on the drawing titled, "Simco Rd., Idaho, Well Construction" located in Appendix A. It is important that the monitoring equipment be installed per this drawing so that monitoring data is accurate and consistent.

Groundwater

The following summarizes groundwater monitoring requirements with the focus of recording groundwater level in each well over time. All three wells are monitored.

1. MW No. 1

1.1. Two pressure transducers are installed; one barometric (atmospheric pressure) installed at 50-feet below ground level and one Levelogger (water level) installed at 500-feet below ground level.

1.2. Transducer readings occur:

1.2.1. once every six (6) hours for the first year with potential for re-evaluation thereafter.

1.2.2. once per hour at end of irrigation season to facilitate water level recovery analysis.

1.3. Hand measurement of water level occurs, at a minimum, once quarterly for the first year with potential for re-evaluation thereafter. However, hand measurement of water level shall be taken and recorded during each monthly site visit to download data.

2. *PW No. 1*

2.1. One pressure transducer, Levelogger (water level), is installed at 500-feet below ground level.

2.2. Transducer readings occur:

2.2.1. once every six (6) hours for the first year with potential for re-evaluation thereafter.

2.2.2. once per hour at end of irrigation season to facilitate water level recovery analysis.

2.3. Hand measurement of water level occurs, at a minimum, once quarterly for the first year with potential for re-evaluation thereafter. However, hand measurement of water level shall be taken and recorded during each monthly site visit to download data.

3. *PW No. 2*

3.1. One pressure transducer, Levelogger (water level), is installed at 460-feet below ground level.

3.2. Transducer readings occur

3.2.1. once every six (6) hours for the first year with potential for re-evaluation thereafter.

3.2.2. once per hour at end of irrigation season to facilitate water level recovery analysis.

3.3. Hand measurement of water level occurs, at a minimum, once quarterly for the first year with potential for re-evaluation thereafter. However, hand measurement of water level shall be taken and recorded during each monthly site visit to download data.

Flow Monitoring

3.4. PW No. 1 and PW No. 2

3.4.1. Instantaneous and totalizing flow of each well via separate flow meters installed as part of the discharge piping of each well.

IDWR Reporting

3.5. Report water level data monthly to IDWR for the first year, re-evaluation thereafter.

3.6. Submission of an annual report to IDWR that includes:

- Analysis of water level trends in J&M PW No. 1, J&M PW No. 2, and J&M MW No. 1.

- Discharge rates over time with analysis in relation to water level trends.
- Crops grown and acres irrigated during the year.

PROCEDURE

Equipment

Monitoring activities require the following equipment:

- (1) Water level sounder
- (1) Laptop Computer with Levelogger 4.4.0 and Logger 5 software installed
- (1) Barologger Optical Reader
- (1) Keller America Transducer Reader Cable
- (1) Hammer
- (2) Crescent Wrenches

Data Collection

J&M PW No. 1 and J&M PW No. 2

Data collected at well sites 1 and 2 includes:

- Flow (gpm)
- Totalized flow (gallons)
- Pump operating power (Hz)
- Water level
    - Hand measured
    - Transducer Data

Collection shall occur following these steps:

1. Record time of data collection.
2. Read flow (gallons per minute, gpm) and total volume (gallons) from the flow meter located in the above-ground pump discharge piping.
3. Read pump operating flow (gpm) and speed (Hz) from pump's variable frequency drive (VFD) LCD screen.
4. Use the wrench to temporarily remove the plug on the pump header labeled "TRANSDUCER". Retrieve the transducers located in well. Refer to section "Logger 5 Software" to download data from transducer to computer. Once data is downloaded, ensure transducer is still active and set to continue recording.

5. Lower water level sounder into sounding tube at a controlled rate. Continue to lower sounder until the sounder "beeps" and shows a read light on the spool. Begin to raise the sounder at a significantly slower rate until the "beep" and red light stop. Read the water level at the point the red light and sound do not indicate water.
6. Repeat Step 5 to confirm results. Once the water level is confirmed, record the time and the water level for the respective well.
7. Remove the sounder from the transducer tube.
8. After removing the sounder from the sounding tube, slowly lower the transducer back into the sounding tube and replace caps on the transducer tube.

Notes

1: If when lowering transducers back into sounding tubes they are stopped prematurely of their final depth, pour water down sounding tube to help the transducers pass the oil in the tube.

2: Upon collection of transducer data,

1. *upload the raw data to: C:\MWW\Dropbox (Mountain Waterworks)\Projects\A to D Projects\Amyx_217\IDWR\RAW_Data_DONOTMODIFY*
2. *update the Compiled Groundwater Monitoring Spreadsheet located at: C:\MWW\Dropbox (Mountain Waterworks)\Projects\A to D Projects\Amyx_217\IDWR*

J&M MW No. 1

The monitoring well does not produce water and does not have a pump installed within it. Data collected at the Monitoring Well includes:

- Water level
  - Hand measured
  - Transducer Data
- Barometric (atmospheric) pressure (transducer

Collection shall occur following these steps:

1. Remove steel cap using hammer.
2. Retrieve transducers from well housing and transfer data to computer according to section "Levellogger 4.4.0 Software."
3. Follow the same protocol listed in steps 5 and 6 from "Data Collection Wells 1 and 2" section above to find the water level using the sounder.
4. Return sounders to well housing and replace steel cap.

Notes

1: *Upon collection of transducer data,*

1. *upload the raw data to: C:\MWW\Dropbox (Mountain Waterworks)\Projects\A to D Projects\Amyx_217\IDWR\RAW_Data_DONOTMODIFY*
2. *update the Compiled Groundwater Monitoring Spreadsheet located at: C:\MWW\Dropbox (Mountain Waterworks)\Projects\A to D Projects\Amyx_217\IDWR*

Logger 5 Software

The "Logger 5" software is necessary to retrieve data from the transducers in each of the wells. It can be downloaded at the following link: http://www.kelleramerica.com/manuals-and-software/software/InstallerLogger5.zip. It should be installed on the computer that is brought to the site.

Levelogger 4.4.0 Software

The "Levelogger 4.4.0" software is necessary to retrieve data from the transducers in each of the wells it can be downloaded at the following link: https://www.solinst.com/downloads/. It should be installed on the computer that is brought to the site.

Appendix D

Water Level Meter Transducer Data Sheet

AUTONOMOUS DATA COLLECTOR

DCX-18 ECO

DATA LOGGING AT FAVORABLE PRICE - Ø 18 MM

The DCX-18 ECO is an autonomous, rechargeable battery powered instrument. It features a stainless steel 18 mm in diameter housing designed to record pressure (water depth) and temperature over long periods at a very economical price. Its small size, rechargeable battery, fully welded housing and the relative sensor option are just a few of the many advantages provided by the DCX-18 ECO.

The electronics employ the latest microprocessor technology which give high accuracy and resolution for the pressure and temperature signals. The measured values are mathematically compensated for all linearity and temperature errors of the pressure sensor.
The use of a non-volatile memory for data storage ensures high data security.



DCX- 18 ECO

DCX-18 ECO

The sensor, electronics and the rechargeable battery are housed in a fully welded stainless steel tube for submersible deployment. For data read-out, the DCX-18 ECO must be recovered from the measurement point. The end cap, sealed by two O-Rings, must then be removed to access the serial interface.
The DCX-18 ECO works with an absolute pressure sensor. In shallow water depths where the influence of barometric pressure changes should be considered, it is recommended that a second data logger (Baro) is placed at the surface, to record the barometric pressure. The PC then calculates the differential pressure resp. the water depth by subtracting the two measured values.

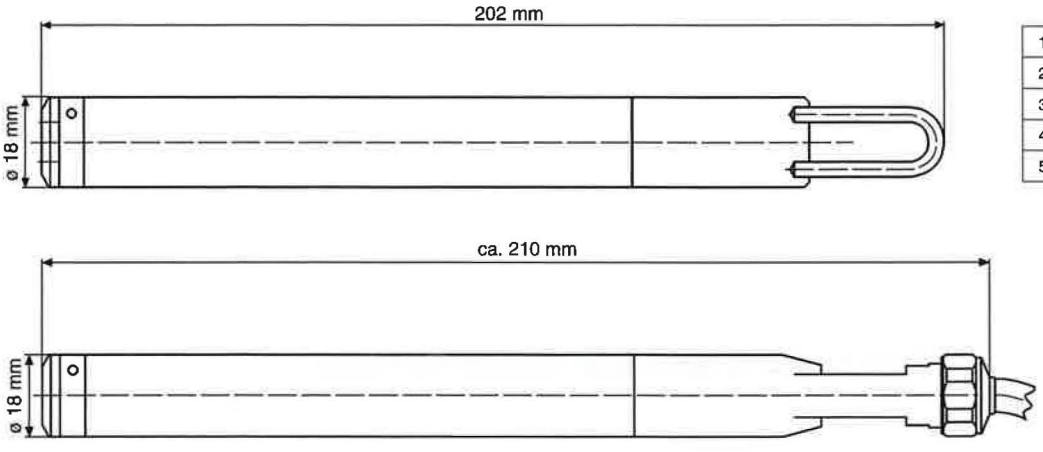


DCX- 18 ECO with cable

DCX-18 ECO with cable (DCX-18 ECO SG or DCX-18 ECO VG)

An optional cable is available for the DCX-18 ECO, enabling data retrieval or configuration and charging the battery without removing the data logger. For relative measuring devices, the cable incorporates a capillary tube which enables venting the relative sensor.

Rechargeable Battery:
The DCX-18 ECO is charged over the USB connection with the K-114M converter connected to PC. For fast charging, connect the power supply unit or the car charging adapter to the converter. The charge status is displayed in the logger software.



1	Supply USB (+5 V, 100 mA)
2	RS485A
3	GND
4	RS485B
5	Supply EXT (+5 V, 700 mA)

CE

KELLER AG für Druckmesstechnik
CH-8404 Winterthur
+41 52 235 25 25

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DE-79798 Jestetten
+49 7745 9214 0

KELLER America
Newport News, Virginia
1 877 253 5537

Edition 05/2017
Subject to alterations
Companies approved to ISO 9001

KELLER

Specifications

Pressure Ranges	PAA	10 mWC (0,8…2 bar)	20 mWC (0,8…3 bar)	50 mWC (0,8…6 bar)	100 mWC (0,8…11 bar)
	PR	10 mWC (0…1 bar)	20 mWC (0…2 bar)	50 mWC (0…5 bar)	100 mWC (0…10 bar)
Overpressure	2 x Pressure Range				

PAA: Absolute, Zero at vacuum PR: Vented Gauge, Zero at atmospheric pressure

Supply	Rechargeable battery
Battery Running Time *	~3 years @ 1 measurement/hour
Charging time ***	~7 h normal charge (USB) ~1 h fast charge (AC/DC or car adapter)
Output Interface	RS 485
Electrical Connection	M12 / 5-pole
Cable Option (SG/VG)	Fixed lengths: 10, 20, 50, 100 m
Accuracy ****	typ. 0,1 %FS
Comp. Temperature Range	-10…40 °C
Error Band ** (-10…40 °C)	max. 0,2 %FS
Resolution	max. 0,0025 %FS

Long Term Stability typ.	Range ≤ 2 bar: 2 mbar (0,02 mWC) Range > 2 bar: 0,2 %FS
Temperature Measurement	Accuracy typ. ±1 °C
Shortest Measuring Interval	1 per second
Memory	57'000 measuring values @ storage interval ≤ 15 s, otherwise 28'000 measuring values (always with attributed time)
Material	Stainless steel AISI 316L O-Ring: Viton® Protective Cap: Delrin®
Probe Weight	≈ 150 g (without cable)
Options	Other material: e.g. Hastelloy or Titanium

* external influences could reduce battery capacity ** Accuracy + Temperature Error *** The rechargeable battery should preferably be charged without an extension cable. It is possible to use an extension cable of up to 10 m in length for fast charging, or a cable of up to 30 m for normal charging. **** Includes Linearity + Repeatability + Hysteresis

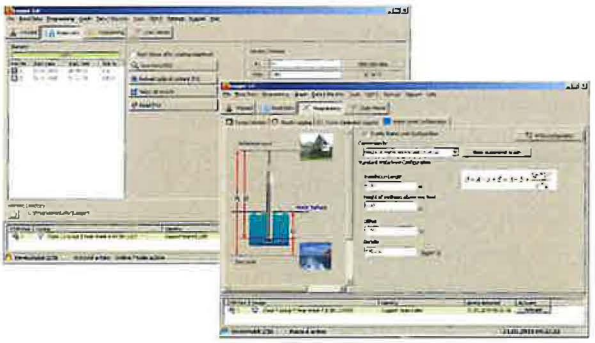
LOGGER 5

The Logger 5 software makes it possible to configure and read autonomous KELLER data loggers. This software assists users during measurements in the field, with processing the data and also with forwarding it to partners or end customers.

Measurement data can be displayed in graphic form, exported, compensated for air pressure or converted into different units. The online function displays the current device values.

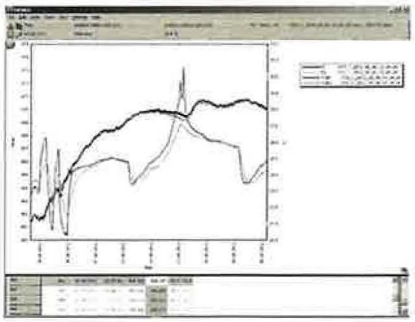
The software is included in the scope of delivery for the interface converter cables, or it can be downloaded free of charge at www.keller-druck.com.

• Supports Windows operating systems



Overview of functions: Logger 5

- Pressure and temperature channels, selectable
- Adjustable measurement interval (1s…99 days)
- Averaging with selectable number of measurements
- Recording modes:
  - • continuous interval measurement
  - • event-controlled recording:
    - · recording starts when value is exceeded
    - · recording starts when value is undercut
    - · recording starts when value changes
    - → combination of continuous and event-controlled recording is possible
- Adjustment of pressure zero point
- Start measurements immediately or at a set time
- Data storage: linear or ring-type memory
- Battery status display
- Online display of measuring channels
- Management of notifications and images for stations



Processing and forwarding measurement data

- Graphic display of measurement data
- Simple export of measurement data and graphics (supports Microsoft Office and these file formats: CSV-1, CSV-2, XML, Hydras, TNO, Wiski, BNA)
- Generation of measurement reports
- Station information stored in SQ Lite database

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Levelogger® 5

Model 3001

The Levelogger 5 records highly accurate groundwater and surface water level and temperature measurements. It combines a pressure sensor, temperature detector, 10-year lithium battery, and datalogger, sealed within a 22 mm x 160 mm (7/8" x 6.3") stainless steel housing with a corrosion-resistant coating baked-on using polymerization technology.

The Levelogger 5 measures absolute pressure using a Hastelloy® pressure sensor, offering high resolution and an accuracy of 0.05% FS. Readings are stable in extreme pressure and temperature conditions. The Hastelloy sensor can withstand 2 times over-pressure without permanent damage. Combined with the durable coating inside and out, the Levelogger 5 has high corrosion and abrasion resistance in harsh environments.

The Levelogger 5 uses a Faraday cage design, which protects against power surges or electrical spikes caused by lightning. Its durable maintenance-free design, high accuracy and stability, make the Levelogger 5 the most reliable instrument for long-term, continuous water level recording.

Applications

- Aquifer characterization: pumping tests, slug tests, etc.
- Watershed, drainage basin and recharge monitoring
- Stream gauging, lake and reservoir management
- Harbour and tidal fluctuation measurement
- Wetlands and stormwater run-off monitoring
- Water supply and tank level measurement
- Mine water and landfill leachate management
- Long-term water level monitoring in wells, surface water bodies and seawater environments



Fast communication and downloading speeds with a high speed Field Reader 5



Upgraded Features

- Increased stability for communication: single-eye optical interface—easier to clean, more scratch resistant
- Increased memory: 150,000 sets of data
- Stronger, more robust design: double o-ring seals for increased leakage protection
- Better thermistor sensitivity: upgraded platinum RTD
- Superior protection in harsh environments: corrosion and abrasion resistant coating—inside and out
- Enhanced Levelogger Software: improved Diagnostic Utility for more proactive user "self-tests"



Single-eye optical interface

The Levelogger 5 features a smooth, single-eye optical interface, which allows for easy cleaning and more reliable, faster communication. Using a Solinst USB device, including the new Field Reader 5, and Levelogger PC Software, programming and data downloading speeds are 57,600 bps.

Flexible Communication

Levelogger Software is streamlined, making it easy to program dataloggers, and view and compensate data in the office or the field. Data compensation is made simple; multiple data files can be barometrically compensated at once.

The Levelogger 5 App Interface on your in-field Leveloggers creates a *Bluetooth*® connection between your dataloggers and the Solinst Levelogger App on your smart device. Also an option, the DataGrabber 5 is a field-ready USB data transfer unit.

Remote monitoring options include the LevelSender 5, a simple and compact device that fits right in a 2" well, STS 5 Telemetry Systems, and the RRL 5 Remote Radio Link. In addition, Levelogger 5 Series dataloggers are SDI-12 compatible.

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Levelogger Setup

Programming Leveloggers is extremely intuitive. Simply connect to a PC using an Optical Reader (Desktop Reader 5 or Field Reader 5) or PC Interface Cable. Use a single screen to fill in your project information and sampling regime. Templates of settings can be saved for easy re-use.

The Levelogger time may be synchronized to the computer clock. There are options for immediate start or future start and stop times. The percentage battery life remaining and the amount of free memory are indicated on the settings screen.

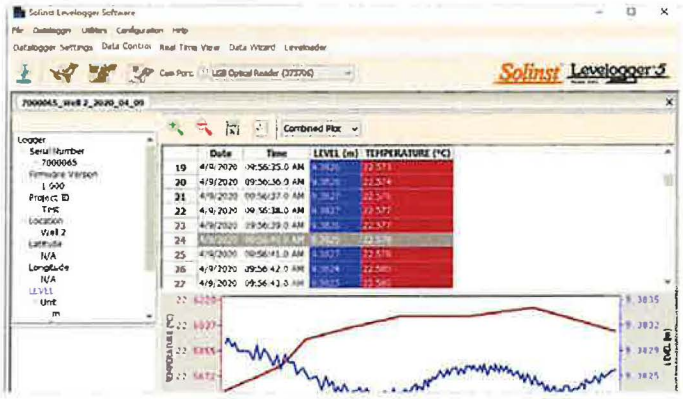
Leveloggers can also be programmed with a sampling regime and start/stop times using the Solinst Levelogger App on your smart device.

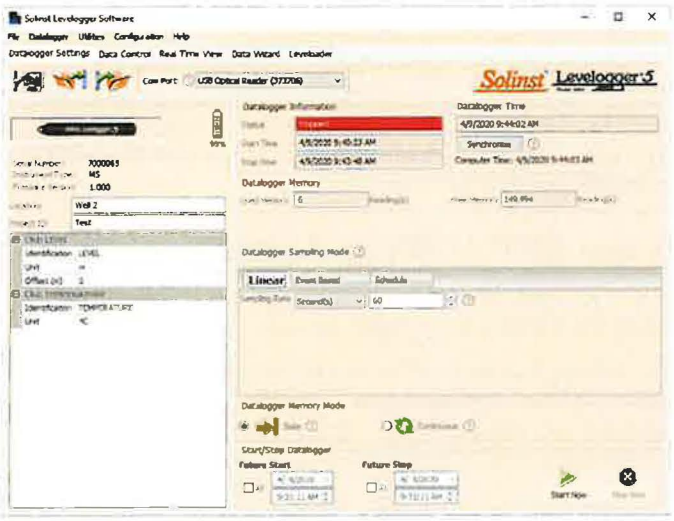
Convenient Sampling Options

Leveloggers can be programmed with linear, event-based, or a user-selectable sampling schedule. Linear sampling can be set from 1/8 second to 99 hours.

Event-based sampling can be set to record when the level changes by a selected threshold. Readings are checked at the selected time interval, but only recorded in memory if the condition has been met. A default reading is taken every 24 hours if no "event" occurs.

The Schedule option allows up to 30 schedule items, each with its own sampling rate and duration. For convenience, there is an option to automatically repeat the schedule.





Data Download, Viewing and Export

Data is downloaded to a PC with the click of a screen icon. There are multiple options for downloading data, including 'Append Data' and 'All Data'. The software also allows immediate viewing of the data in graph or table format using 'Real Time View'.

Level data is automatically compensated for temperature; the temperature data is also downloaded. Barometric compensation of Levelogger data is performed using the Data Wizard, which can also be used to input manual data adjustments, elevation, offsets, density, and adjust for Barometric efficiency. The Levelogger Software allows easy export of the data into a spreadsheet or database for further processing.

The Solinst Levelogger App also allows you to view and save real-time or logged data right on your smart device.

Helpful Utilities

The Diagnostic Utility can be used in case of an unexpected problem. It checks the functioning of the program, calibration, backup and logging memories, the pressure transducer, temperature sensor and battery voltage, as well as enabling a complete Memory Dump, if required. A firmware upgrade will be available from time to time, to allow upgrading of the Levelogger 5, as new features are added.

Levelogger 5 App Interface

The Levelogger 5 App Interface uses *Bluetooth*® technology to connect your Levelogger to your smart device. With the Solinst Levelogger App, you can download data, view real-time data, and program your Leveloggers. Data can be e-mailed from your smart device directly to your office (see Model 3001 Levelogger 5 App Interface data sheets).



Download on the App Store

GET IT ON Google play

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Standard Cable Deployment

Leveloggers may be suspended on a stainless steel wireline or Kevlar® cord. This is a very inexpensive method of deployment, and if in a well, allows the Levelogger to be easily locked out of sight and inaccessible. Solinst offers wireline and cord assemblies in a variety of lengths.

Solinst 3001 Well Cap Assembly

The 2" Locking Well Caps are designed for both standard and Direct Read Cable deployment options.

The well cap has a convenient eyelet for suspending Leveloggers using wireline or Kevlar cord. The Well Cap insert has two openings to accommodate direct read cables for both a Levelogger and Barologger. Adaptors are available to fit 4" wells.

The cap is vented to equalize atmospheric pressure in the well. It slips over the casing, and can be secured using a lock with a 9.5 mm (3/8") shackle diameter.



Levelogger 2" Locking Well Cap Installations (see Well Caps data sheet for more details)

L5 Direct Read Cables

When it is desired to get real-time data and communicate with Leveloggers without removal from the water, they can be deployed using L5 Direct Read Cables. This allows viewing of the data, downloading and/or programming in the field using a portable PC, DataGrabber 5, or the Solinst Levelogger 5 App Interface.

Leveloggers can be connected to an SDI-12 datalogger using the Solinst SDI-12 Interface Cable attached to a L5 Direct Read Cable.

Cable Specifications

L5 Direct Read Cables are available for attachment to any Levelogger in lengths up to 1500 ft. The 3.175 mm dia. (1/8") coaxial cable has an outer polyurethane jacket for strength and durability. The stranded stainless steel conductor gives non-stretch accuracy.



Barologger 5 and Levelogger 5 installed in Well Using L5 Direct Read Cables

Accurate Barometric Compensation

Leveloggers measure absolute pressure (water pressure + atmospheric pressure) expressed in feet, meters, centimeters, psi, kPa, or bar.

The most accurate method of obtaining changes in water level is to compensate for atmospheric pressure fluctuations using a Barologger 5, avoiding time lag in the compensation.

The Barologger 5 is set above high water level in one location on site. One Barologger can be used to compensate all Leveloggers in a 30 km (20 mile) radius and/or with every 300 m (1000 ft.) change in elevation.

The Levelogger Software Data Compensation Wizard automatically produces compensated data files using the synchronized data files from the Barologger and Leveloggers on site.

The Barologger 5 uses pressure algorithms based on air rather than water pressure, giving superior accuracy.

The recorded barometric information can also be very useful to help determine barometric lag and/or barometric efficiency of the monitored aquifer.

The Barologger 5 records atmospheric pressure in psi, kPa, or mbar. When compensating submerged Levelogger 5, Edge, Gold or Junior data, Levelogger Software can recognize the type of Levelogger and compensate using the same units found in the submerged data file (e.g. feet or meters). This makes the Barologger 5 backwards compatible.

Synchronize and Simplify Barometric Compensation Across Entire Site



Levelogger 5 Specifications

Level Sensor:	Piezoresistive Silicon with Hastelloy Sensor
Accuracy:	± 0.05% FS (Barologger 5: ± 0.05 kPa)
Stability of Readings:	Superior, low noise
Resolution:	0.002% FS to 0.0006% FS
Units of Measure:	m, cm, ft., psi, kPa, bar, °C. °F (Barologger 5: psi, kPa, mbar, °C, °F)
Normalization:	Automatic Temperature Compensation
Temp. Comp. Range:	0° to 50°C (Barologger 5: -10 to +50°C)
Temperature Sensor:	Platinum Resistance Temperature Detector (RTD)
Temp. Sensor Accuracy:	± 0.05°C
Temp. Sensor Resolution:	0.003°C
Battery Life:	10 Years – based on 1 reading/minute
Clock Accuracy (typical):	± 1 minute/year (-20°C to 80°C)
Operating Temperature:	-20°C to 80°C
Maximum # Readings:	150,000 sets of readings
Memory Mode:	Slate and Continuous
Communication:	Optical high-speed: USB, SDI-12 57,600 bps with USB
Size:	22 mm x 160 mm (7/8" x 6.3")
Weight:	166 grams (5.9 oz)
Corrosion Resistance:	Baked-on coating using polymerization technology (inside and out)
Other Wetted Materials:	Delrin®, Viton®, 316L stainless steel, Hastelloy, PFAS-free PTFE coating
Sampling Modes:	Linear, Event & User-Selectable with Repeat Mode, Future Start, Future Stop, Real-Time View
Measurement Rates:	1/8 sec to 99 hrs
Barometric Compensation:	Software Wizard and one Barologger 5 in local area (approx. 30 km/20 miles radius)

Models	Full Scale (FS)	Accuracy	Resolution
Barologger	Air only	± 0.05 kPa	0.002% FS
M5	5 m (16.4 ft.)	± 0.3 cm (0.010 ft.)	0.001% FS
M10	10 m (32.8 ft.)	± 0.5 cm (0.016 ft.)	0.0006% FS
M20	20 m (65.6 ft.)	± 1 cm (0.032 ft.)	0.0006% FS
M30	30 m (98.4 ft.)	± 1.5 cm (0.064 ft.)	0.0006% FS
M100	100 m (328.1 ft.)	± 5 cm (0.164 ft.)	0.0006% FS
M200	200 m (656.2 ft.)	± 10 cm (0.328 ft.)	0.0006% FS

Low Cost Datalogging: See Levelogger 5 Junior data sheet.
Vented Dataloggers: See LevelVent 5 & AquaVent 5 data sheets.
Conductivity Datalogging: See Levelogger 5 LTC data sheet.

DataGrabber 5



The DataGrabber 5 is a field-ready data transfer device that allows you to copy data from a Levelogger onto a USB flash key (Dual USB & USB-C key provided).

The DataGrabber 5 is compact and very easy to transport. It connects to the top end of a Levelogger's Direct Read Cable, or Slip Fit and Threaded Adaptors are available to allow direct connection to a Levelogger.

One push-button is used to download all of the data in a Levelogger's memory to a USB device. A convenient LED light indicates the operation of the DataGrabber 5. The data in the Levelogger memory is not erased, and logging is not interrupted if the Levelogger is still running. The DataGrabber 5 uses its own replaceable 9V battery.

LevelSender 5 Telemetry



The LevelSender 5 is a simple, low cost telemetry system designed to send data from Leveloggers in the field, to your smart device and PC database via cellular communication.

Initial set up is done through a user-friendly software wizard at the Home Station. There is two-way communication between the LevelSender 5 and Home Station, allowing remote updates.

Each LevelSender 5 device has a single port to connect one Levelogger with an optional splitter that allows the connection of two. A built-in barometer allows barometric compensation of water level data.

LevelSender 5 stations are compact in design, which allows them to be discreetly installed inside a 2" (50 mm) well (see Model 9500 data sheet).

STS 5 Telemetry

STS 5 Telemetry provides an efficient method to send Levelogger data from the field to your desktop. Cellular communication options give the flexibility to suit any project. STS Systems are designed to save costs by enabling the self-management of data. Alarm notification, remote firmware upgrades and diagnostic reporting make system maintenance simple (see Model 9100 data sheet).

RRL 5 Remote Radio Link

The RRL 5 Remote Radio Link is ideal for closed-loop, short range applications up to 30 km (20 miles). The RRL 5 can be linked to an STS 5 telemetry station to change from a closed-loop telemetry system to one which can be accessed from anywhere through internet connectivity. (see Model 9200 data sheet).

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Appendix E

Water Level Meter (Sounder) Data Sheet

Solinst Coaxial Cable Water Level Meter

Model 102 Data Sheet

Laser Marked Water Level Meter

Model 102

The Solinst Model 102 Water Level Meter is designed to measure groundwater levels, especially in small diameter tubes and piezometers, or where a flexible assembly is needed to get past down hole instrumentation.

Also available from Solinst, are the Model 101 and 101B Water Level Meters, which feature easy-to-read, easily repaired flat tape. (See Model 101 Water Level Meter Data Sheets).

Operating Principles

The Model 102 Water Level Meter uses a choice of two small diameter probe designs, attached to a narrow coaxial cable, fitted on a sturdy ergonomically designed reel. A standard 9 volt battery, housed in an easy-access battery drawer, powers the Water Level Meter.

When the probe enters water the electrical circuit is completed, sending a signal back to the reel where a light and clearly audible buzzer are activated. The water level is then determined by taking a reading directly from the cable at the top of the well casing or borehole.

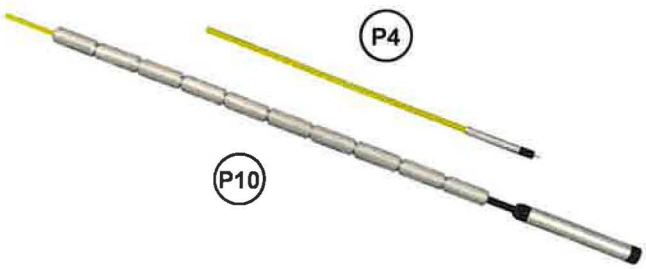
A sensitivity control allows the buzzer to be scaled back or turned off while in cascading water, and ensures a clear signal in both high and low conductivity conditions.

Narrow Diameter Probes

Model 102 Probes are designed for flexibility. The probe tips use a recessed design to minimize false signals in cascading water.

P10: 10 mm dia. x 70 mm long (3/8" x 2.75") stainless steel with 10 stainless steel weights, weighing 174 g (6.14 oz). This probe is ideal for the majority of water level measurement applications. The flexible weight assembly allows easy well access and keeps the cable hanging straight in monitoring wells.

P4: 4 mm dia. x 38 mm long (0.157" x 1.5") stainless steel weighing 10 g (0.35 oz), with no weights. It is ideal for shallow applications and for accessing very narrow diameters, especially the channels of the Solinst CMT System, Drive-Point Piezometers or narrow open tubes.





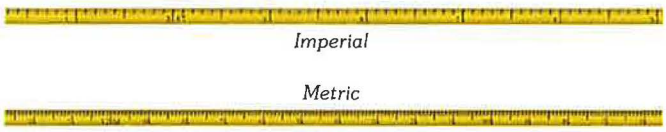
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Laser Marked Cable

The coaxial cable has a durable polyurethane jacket with permanent markings precisely laser etched on the cable every each millimeter or every 1/100 ft.

The cable reels smoothly, remains flexible, and comes in lengths from 30 m – 300 m (100 ft – 1000 ft).

A braided copper outer conductor gives flexibility and a stranded stainless steel central conductor gives strength. It is easy to repair and splice.



Laser Markings Each Millimeter or Each 1/100 ft

Water Level Meter Features

Low Cost	• Solinst quality at a low price
Narrow	• 4 mm (0.157") diameter probe
Long Life	• Rugged, corrosion resistant components • Strong, flexible cable is easily spliced • Replacement probes, cables and parts
Accurate	• Precise markings every mm or 1/100 ft • Traceable to national standards

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Water Level Meter Reels

The standard reel has an easy access battery drawer, a well designed brake assembly, and convenient carrying handle. It has been ergonomically designed to be comfortable in use and stable when placed on the ground. It has an on/off sensitivity switch, light, buzzer, battery test button, and comes with a tape guide.

The mini reel is sturdy, yet very compact and easy to carry. It also has an on/off sensitivity switch, light, buzzer, and battery test button.

102 Water Level Meter Specifications	
Operating temperature of reel:	-20°C to +50°C
Operating temperature of cable/probe:	-20°C to +80°C
Wetted materials (cable/probe):	Polyurethane, stainless steel, Delrin®, Viton®, Polyolefin (P10 only)
Reel IP rating:	IP64 (dust and splash proof)
Conductivity detection threshold:	P10: 40 µS/cm P4: 100 µS/cm

Cable Length Options

Solinst Model 102 Water Level Meters are available on reels in the following standard lengths:

Mini Reel	* 25 m	* 80 ft
Small Reel	* 30 m	* 100 ft
	* 60 m	* 200 ft
	* 100 m	* 300 ft
	150 m	500 ft
	250 m	750 ft
	300 m	1000 ft

* Cables with P4 Probes are only available in these lengths

Other Options

Carrying Bag: Small and mini padded nylon carrying bags are available, as optional extras. The bag design has a convenient shoulder strap, zippered front pocket, zippered top, and a grommet in the base to prevent moisture build-up. A mini bag has no pocket.

Replacement Parts: Replacement cables with probes, weights, and other spare parts are available.



102M Mini Laser Marked Water Level Meter



The laser marked coaxial cable is mounted on a convenient small reel that is light-weight and fits easily into a mini carrying case or backpack. The accurate cable is marked each millimeter or every 1/100 ft.

The 102M Mini Water Level Meter is available in 25 m and 80 ft lengths. There is the choice of the P4 or P10 Probe.



Measure water levels within the narrow channels of a Solinst CMT® System.

Tape Guide/Datum

The tape guide can be used to protect the cable from damage on rough edges, help the probe hang straight in the well, and ensures consistent measurements. It can also provide reel support on the casing. A tape guide is provided with each standard reel.



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