

APPENDIX D
AQUIFER TESTING RESULTS

APPENDIX D: AQUIFER TESTING RESULTS

CONTENTS

D.1 INTRODUCTION	D-1
D.2 AQUIFER TESTING	D-2
D.2.1 Field Program	D-2
D.2.2 Analysis Methods	D-3
D.2.3 Results	D-4
D.3 BOREHOLE DILUTION TESTING	D-5
D.3.1 RI Field Program	D-5
D.3.2 Analysis Method	D-5
D.3.3 Phase 3 RI Borehole Dilution Test Results	D-6
D.3.4 Results of Borehole Dilution Tests from Pilot and Treatability Studies	D-7
D.4 REFERENCES	D-8

TABLES

Table D-1	Well Construction for Slug Test Wells
Table D-2	Individual Slug Test Results
Table D-3	Summary of Slug Test Results
Table D-4	Slug Test Results from Pilot and Treatability Studies
Table D-5	Pumping Test Results from Pilot and Treatability Studies
Table D-6	Specific Capacity Test Results from Pilot and Treatability Studies
Table D-7	Borehole Dilution Test Results
Table D-8	Borehole Dilution Test Results from Pilot and Treatability Studies

FIGURES

Figure D-1a	Slug Tests in Alluvium and Cross-Screened Wells
Figure D-1b	Slug Tests in Alluvium and Cross-Screened Wells Near Las Vegas Wash, Las Vegas Wash Bioremediation Pilot Study
Figure D-1c	Slug Tests in Alluvium and Cross-Screened Wells Near Las Vegas Wash, Seep Well Field Area Bioremediation Pilot Study
Figure D-1d	Slug Tests in UMCf Wells, OU-1
Figure D-1e	Slug Tests in UMCf Wells, OU-2 and OU-3
Figure D-2	Distribution of Hydraulic Conductivity by Screened Unit
Figure D-3	Hydraulic Conductivity vs Screen Depth

ATTACHMENTS

Attachment D-1	Plots from RI Slug Tests
Attachment D-2	Plots from RI Borehole Dilution Tests

D.1 INTRODUCTION

This appendix presents the results of a series of aquifer testing programs implemented as part of the Remedial Investigation (RI) conducted at the Nevada Environmental Response Trust ("NERT" or "Trust") Site located in Henderson, Nevada (the "Site"). The purpose of aquifer testing was to characterize the hydraulic conductivity and groundwater velocity of the different hydrogeologic units present at the Site.

The first aquifer testing program was conducted in 2015 as part of the NERT RI Phase 1 Data Gap Investigation (Phase 1 RI). The Phase 1 RI included slug tests of wells in OU-1 and OU-2 and was focused on characterizing hydraulic properties of the Middle Water Bearing Zone (WBZ) within the Upper Muddy Creek formation (UMCf) fine-grained unit. The results of this first round of slug tests were reported in the RI Data Evaluation Technical Memorandum (Ramboll Environ 2016). The tabulated results and curve fit plots are included in this appendix.

The results of the Phase 1 RI were evaluated to identify additional data gaps that were to be addressed during the Phase 2 RI investigation. The Phase 2 RI, conducted between February 2017 and June 2018, included slug tests of new wells installed in OU-1 and the NERT Off-Site Study Area of OU-2. The purpose of testing the downgradient wells was to provide additional hydraulic characterization with particular focus on the areas outside the paleochannels where perchlorate concentrations are highest.

In 2016 at NDEP's request, the NERT RI Study Area was expanded to include the Eastside Study Area and the Phase 3 RI was conducted to address data gaps related to Henderson Legacy Conditions (HLCs). A series of slug tests were included in the scope of work of the Phase 3 RI field investigation and were conducted between December 2017 and June 2018. Slug tests were performed in new wells installed in the Eastside Sub-Area of OU-2 and Northeast Sub-Area of OU-3, and in several previously existing wells.

Between 2015 and 2017, a focused field investigation was conducted to characterize the contaminant source area below the Unit 4 and Unit 5 buildings in OU-1. This investigation included 10 slug tests and 3 specific capacity tests in wells screened in the UMCf. The results from this investigation, which are detailed in the Unit 4 and 5 Buildings Investigation Source Area Characterization Report (Tetra Tech 2020), are also included in this appendix.

Additional aquifer testing results have been incorporated in this appendix that were conducted as part of the following studies:

- Seep Well Field Area Bioremediation Treatability Study (Tetra Tech 2016)
- Galleria Drive Bioremediation Treatability Study (Tetra Tech 2019a)
- Las Vegas Wash Bioremediation Pilot Study (Tetra Tech 2019b)
- Unit 4 In-Situ Bioremediation Treatability Study (Tetra Tech 2018a)
- In-Situ Chromium Treatability Study (Tetra Tech 2018b)
- AP Area Treatability Study (Tetra Tech 2018c)

D.2 AQUIFER TESTING

During the RI field program, slug testing was conducted at 176 wells. Additional aquifer tests (including slug tests at 215 wells) have been conducted as part of ongoing pilot and treatability studies being performed at the NERT Site. The locations where slug tests were conducted and the final estimates of hydraulic conductivity (K) are shown on Figures D-1a through D-1d.

D.2.1 Field Program

The slug testing program was implemented over multiple field events conducted between 2015 and 2019. The field procedures used are documented in Appendix B1, except as noted below. A list of tested wells and well construction parameters is provided in Table D-1. The scope of the slug testing field program included the following tests:

- **Phase 1 RI:** Slug tests were completed at 23 wells screened in the middle WBZ within the fine-grained UMCf between January 13 and February 12, 2015. Slug tests were not conducted at one planned location, M-155, because the well was found to be artesian at the time of testing.
- **Phase 2 RI:** A total of 91 wells were slug tested in Fall 2017 as part of the Phase 2 RI. An additional 13 wells were slug tested in March 2019. The results of this testing are presented in this Appendix. Additional tests proposed for PC-174 and M-214 were not conducted due to insufficient water. The test at PC-170 completed very rapidly, indicating a very high K result; however, the transducer record was too unstable to use for analysis.
- **Phase 3 RI:** Slug tests were performed in 39 wells between February and October 2018. The data from all but one test were suitable for analysis. The test at ES-25B did not show any apparent water level recovery, suggesting either an extremely low K at that location (<0.001 ft/day) or that ES-25B may need additional development¹.
- **Unit 4 and 5 Investigation:** Slug tests were conducted in 10 wells located near Unit Buildings 4 and 5 in OU-1. The field procedures used in these tests are described in Tetra Tech's Unit Building 4 and 5 Investigation Report (Tetra Tech 2020). The individual results are summarized in this appendix.
- **Pilot and Treatability Studies:** Slug tests at 215 wells were conducted as part of the Seep Well Field Area Bioremediation Treatability Study, Galleria Drive Bioremediation Treatability Study, Las Vegas Wash Bioremediation Pilot Study, Unit 4 In-Situ Bioremediation Treatability Study, In-Situ Chromium Treatability Study, and the AP Area Treatability Study. Field procedures are documented in the individual work plans and reports for each study.

¹ This well, which is located in OU-3, has been scheduled for additional development and a repeat attempt at slug testing. The results will be reported in the forthcoming OU-3 RI report.

D.2.2 Analysis Methods

For most tests conducted for the RI, the response data from the slug tests was used to estimate hydraulic conductivity (K) using either the Kansas Geological Survey (KGS) curve fitting method (Hyder et al. 1994) as implemented by AQTESOLV software (HydroSOLVE, Inc.) or the Bouwer and Rice (1976) curve fitting method implemented in Python.² The analysis procedures used for slug tests conducted as part of pilot and treatability studies are not described in this report, but are described in the various pilot and treatability study work plans or reports.

To apply these methods, the aquifer was assumed to be confined, isotropic, and of uniform thickness at each well. For wells screened in the Alluvium, the saturated thickness of the aquifer at each well location was assumed to be the difference between the water level measured at the well just prior to the slug test and the bottom depth of the well screen, plus 10 feet.³ For wells screened in the Upper Muddy Creek formation (UMCf), and wells screened across the Alluvium and UMCf, the saturated thickness of the aquifer was taken as the difference between the water level and the bottom depth of the well screen.

Other input parameters required for the KGS and Bouwer-Rice analyses included the casing radius, position of the screened interval, and the effective radius of the well, which was set to the outer radius of the filter pack, as recommended by Butler (1998). For the KGS method, an attempt was made to constrain the specific storage (S_s) parameter to the typical range for fine-grained materials ($1E-05$ to $1E-4$ ft⁻¹), however many wells required S_s values outside of this range. The KGS model was fit to the entire set of response data.

For tests with full recovery analyzed with the Bouwer-Rice method, the model was fit within the preferred recovery range (20 to 30 percent of normalized head). For wells screened across the water table, the effective casing radius was corrected using the procedures described by Butler (1998), and the recovery curve was fit within the second straight line segment (formation recovery) after completion of filter pack drainage. For extremely slow recoveries that failed to reach the preferred recovery range, the results were fit in the most linear range of response data. Results analyzed with the Bouwer-Rice method were adjusted to use the more rigorously derived shape factor presented in Zlotnik et al. (2010).

Tests conducted at seven wells during the Phase 2 RI displayed extremely rapid responses typical of very high hydraulic conductivity formations ($K > 30$ ft/day). Some of these tests also exhibited oscillating responses (PC-162, PC-165, PC-190). These rapidly responding tests were analyzed in AQTESOLV using either the Bouwer-Rice model with the Zlotnik et al. (2010) shape factor or Springer and Gelhar (1991) model, depending on the degree of oscillatory response shown and whether the wells were screened across the water table. For high- K wells screened across the water table, the duration of the aquifer response following filter pack drainage was extremely brief, and thus there is less certainty in the analysis results from these locations.

² The Bouwer-Rice model was implemented in Python code to perform rapid, automated test analysis of the large number of tests performed in the Phase 2 and 3 investigations. The results from the Python version of the Bouwer-Rice model were verified by comparing against results from the same model as implemented in AQTESOLV.

³ The saturated thickness was increased by 10 feet to provide a reasonable estimate of the total thickness of alluvial aquifer influenced by the slug test. The results were not sensitive to the aquifer thickness.

D.2.3 Results

The estimated K values from each individual slug test analysis conducted as part of the RI are shown in Table D-2. The results from most wells generally showed a reasonable level of consistency between falling head and rising head K estimates, and between K estimates conducted using different initial displacements. The averages of the most reliable slug testing results from each well tested for the RI, as judged by the goodness-of-fit between the data and slug test model, are shown in Table D-3, and the results of slug tests conducted for treatability and pilot studies are shown in Table D-4. The locations of tested wells and the slug tests results are shown in Figures D-1a through D-1d. Figures showing the curve fits for each test are provided in Attachment D-1.

Figures D-2 and D-3 illustrate the distribution of K with screened unit and screened depth. Figure D-2 shows a kernel density plot of the log-transformed K of wells screened in alluvium, cross-screened between alluvium and the UMCf, and solely screened in the UMCf. When aggregated over the RI Study Area, the results show generally higher K values in the alluvium (geometric mean=20 ft/day), and significantly lower K values in the UMCf (geometric mean=0.12 ft/day), though there is some overlap in K values between these distinct units.

The cross-screened well K distribution is centered between the Alluvium and UMCf distributions and has a geometric mean around 4.4 ft/day. The results of slug tests conducted in cross-screened wells reflects a weighted average of hydraulic conductivities from the intercepted intervals of each formation within the screen. The relative proportion of low and high conductivity intervals exposed at the well screen varies by well. As such, the overall geometric mean of hydraulic conductivity of cross-screened wells is presented to show the aggregate results of hydraulic testing of cross-screened wells and should not be interpreted as an estimate of the average conductivity of the alluvium and UMCf formations.

Figure D-3 illustrates how K varies with depth, with the data points colored by screened unit, which is also correlated with depth. Figure D-3 also shows a regression line fit to slug test results from wells screened in the UMCf, which illustrates that K generally declines with depth in this unit. This finding is consistent with the decline in water-filled porosity with depth observed in a concurrent NMR study (Appendix E).

Figure D-3 also illustrates that K varies by several orders of magnitude within the same geologic unit and depth range. While no preferential pathways have been identified within the UMCf, higher K areas within the UMCf may locally influence contaminant transport where present. The pilot and treatability studies included additional pumping and specific capacity tests. The results of these tests are listed in Tables D-5 and D-6.

D.3 BOREHOLE DILUTION TESTING

During the Phase 3 RI, borehole dilution tests were conducted in two wells located in the Eastside Sub-Area (ES-3 and ES-10). Borehole dilution tests were conducted to estimate groundwater flow velocities. Additional borehole dilution tests have also been conducted as part of ongoing pilot and treatability studies at the Site.

D.3.1 RI Field Program

To conduct a borehole dilution test, a conservative tracer (i.e., specific conductivity or non-reactive ion concentration) is emplaced within the test section by mixing or circulating the tracer solution in the wellbore interval. The change in this conservative parameter is then monitored over time. For this study, deionized water with very low specific conductivity was introduced to the well's screened section. Background specific conductivity in the NERT RI Study Area is typically high (3,000–4,000 uS/cm) due to high levels of total dissolved solids (TDS); therefore, deionized water with two to three orders of magnitude lower specific conductivity (1-50 uS/cm) was used for this test.

After introduction of deionized water, the increase in specific conductivity with time as formation water entered the well screen was monitored using a vertical array of conductivity sensors located at different depths within the screen. Based on the recovery characteristics observed, flow velocity was estimated for the formation section penetrated by the well screen. The presence of vertical flow within the well screen can also be identified from the sensor-depth response pattern.

Single-borehole dilution tests were performed in ES-3 and ES-10 in June 2018. Table D-1 shows well construction and logged lithologies of screened intervals for each well tested. To conduct the borehole dilution tests, the dilution testing liquid (deionized water) was delivered into the well through a custom-built deployment device constructed from well casing. During each test, a series of data loggers was deployed along the well screen interval to record several parameters including temperature, depth to water, specific conductance, salinity, total dissolved solids and salinity. Three sensors were used for the test at ES-3, and five sensors were used for the test at ES-10. A detailed summary of field procedures used for borehole dilution tests is provided in Appendix B1.

D.3.2 Analysis Method

The analysis of borehole dilution tests is described in Halevy et al. (1966), Hall et al. (1991), and Hall (1993). The change in log tracer concentration over time within the wellbore is linearly related to the flow velocity within the well, V_w , as follows:

$$V_w = \frac{d(\ln C)/dt}{-A/V} \quad (1)$$

where C is the tracer concentration, A is the cross-sectional area within the well screen, and V is the well volume over the measurement section. As shown by Halevy et al. (1966), the cross-sectional area within the well screen in Equation (1) is adjusted to account for the in-well tracer-measurement system (downhole probe, cables), as follows:

$$V_w = -\frac{d(\ln C)/dt}{[2r_w/\pi(r_w^2 - r_t^2)]} \quad (2)$$

where r_w is the radius of well screen, and r_t is the equivalent radius of the tracer-measurement system (assumed to be 0.625 inches for all tests).

V_w is related to actual groundwater velocity within the aquifer (V_a) by the following relationship:

$$V_w = V_a \cdot n_e \cdot \alpha \quad (3)$$

where n_e is the effective porosity, and α is the groundwater-flow-distortion factor with a common range of 0.5 to 4. The distortion factor accounts for perturbations in the flow field caused by the contrast between the hydraulic properties of the well and the surrounding undisturbed aquifer. The following equation (Halevy et al. 1966, Drost et al. 1968) is used to estimate α :

$$\alpha = \frac{4}{1 + \left(\frac{r_1}{r_2}\right)^2 + \left(\frac{k_2}{k_1}\right) \left[1 - \left(\frac{r_1}{r_2}\right)^2\right]} \quad (4)$$

where:

r_1 = the inner well casing radius,

r_2 = the combined radius of the well casing and filter pack,

k_1 = the combined hydraulic conductivity of the well screen and filter pack,

k_2 = the hydraulic conductivity of the undisturbed formation.

For the analysis of borehole dilution tests conducted as part of the Phase 3 RI, the combined hydraulic conductivity of the filter pack and well screen were assumed to be 150 ft/day. The hydraulic conductivity of the undisturbed formation was estimated from slug tests performed at each of the wells (see Section 2).

D.3.3 Phase 3 RI Borehole Dilution Test Results

Using the equations above, the specific conductivity data records for each sensor were analyzed to estimate average groundwater velocity. One sensor from ES-3 and four sensors from ES-10 produced usable results, which are shown in Attachment D-2. Curve fits were not performed for ES-3 sensors 1 and 2, which showed increasing specific conductivity during the test period. The ES-10 sensors 4 and 5 did not demonstrate recovery to ambient specific conductivity after release of the deionized water. These two tests were not analyzed.

A summary of parameters used for the analysis of the sensor data and resulting estimates of average groundwater flow velocity along each borehole are presented in Table D-7. To estimate the groundwater flow velocity, effective porosities ranging from 3 – 7% were assumed for ES-10 (based on three soil samples collected from within the screened depth interval), and effective porosities ranging from 3 – 9% were assumed for ES-3 (the range of available alluvium effective porosity values). Assuming these effective porosities, the resulting estimates of groundwater flow velocity range from 0.37 to 1.1 ft/day at ES-3 (alluvium), and from 0.030 to 0.35 ft/day at ES-10 (UMCf). At ES-10, the highest velocity was recorded in the sensor placed near the base of the well screen, and the lowest was recorded near the screen midpoint.

D.3.4 Results of Borehole Dilution Tests from Pilot and Treatability Studies

Borehole dilution tests were conducted as part of the Galleria Drive Bioremediation Treatability Study, Las Vegas Wash Bioremediation Pilot Study, and the Seep Well Field Area Bioremediation Treatability Study. These results are listed in Table D-8. The groundwater velocities measured in the alluvium are generally between 2 and 200 ft/day, and the velocities in the UMCf are generally between 0.01 and 1 ft/day.

D.4 REFERENCES

- Bouwer, H. and R.C. Rice. 1976. A slug test method for determining hydraulic conductivity of unconfined aquifers with completely or partially penetrating wells, *Water Resources Research*, vol. 12, no. 3, pp. 423-428.
- Butler Jr., J.J. 1998. *The Design, Performance and Analysis of Slug Tests*.
- Drost W., D. Klotz, A. Koch, H. Moser, F. Neumaier, and W. Rauert. 1968. Point dilution methods of investigating groundwater flow by means of radioisotopes. *Water Resources Research* 4(1):125-146.
- Halevy E., H. Moser, O. Zellhofer, and A. Zuber. 1966. Borehole dilution techniques – a critical review. In *Isotopes in Hydrology*, International Atomic Energy Agency, Vienna, Austria.
- Hall, S.H. 1993. Single well tracer tests in aquifer characterization. *Ground Water Monitoring & Review* 13(2):118-124.
- Hall, S.H., S.P. Luttrell, and W.E. Cronin. 1991. A method for estimating effective porosity and groundwater velocity. *Ground Water* 29(2):171-174.
- Hyder, Z., J.J. Butler, Jr., C.D. McElwee and W. Liu. 1994. Slug tests in partially penetrating wells, *Water Resources Research*, vol. 30, no. 11, pp. 2945-2957.
- Ramboll Environ (Ramboll Environ US Corporation). 2016. Technical Memorandum, Remedial Investigation Data Evaluation, Nevada Environmental Response Trust Site, Henderson, Nevada. Approved by NDEP on May 2, 2016.
- Springer, R.K. and L.W. Gelhar. 1991. Characterization of large-scale aquifer heterogeneity in glacial outwash by analysis of slug tests with oscillatory response, Cape Cod, Massachusetts, U.S. Geol. Survey. *Water Res. Invest. Rep.* 91-4034, pp. 36-40.
- Tetra Tech (Tetra Tech, Inc.). 2016. Final Seep Well Field Area Bioremediation Treatability Study Work Plan, Nevada Environmental Response Trust Site, Henderson, Nevada. September 6.
- Tetra Tech. 2018a. Unit 4 Source Area In-Situ Bioremediation Treatability Study Work Plan, Revision 1, Nevada Environmental Response Trust Site, Henderson, Nevada. February 5.
- Tetra Tech. 2018b. In-Situ Chromium Treatability Study Results Report, Nevada Environmental Response Trust Site, Henderson, Nevada. March 22.
- Tetra Tech. 2018c. AP Area Down and Up Flushing Treatability Study Results Report, Nevada Environmental Response Trust Site, Henderson, Nevada. Appendix E Aquifer Testing Results Technical Memorandum. December 21.
- Tetra Tech. 2019a. Galleria Drive Bioremediation Treatability Study Work Plan Addendum, Nevada Environmental Response Trust Site, Henderson, Nevada. March 29.
- Tetra Tech. 2019b. Las Vegas Wash Bioremediation Pilot Study Work Plan Addendum, Nevada Environmental Response Trust Site, Henderson, Nevada. February 15.
- Tetra Tech. 2020. Unit 4 and 5 Buildings Investigation Source Area Characterization Report, Revised, Nevada Environmental Response Trust Site, Henderson, Nevada. January 7.
- Zlotnik, V.A., D. Goss, and G.M. Duffield. 2010. General steady-state shape factor for a partially penetrating well. *Ground Water*, 48(1), 111-116.

TABLES

**TABLE D-1. Well Construction for Slug Test Wells
Nevada Environmental Response Trust Site
Henderson, Nevada**

RI Phase	Well	OU	Screened Interval (ft bgs) [a]	Pre-test Depth to Water (ft btoc)	Inner Casing Diameter (in) [a]	Screened Unit	Notes
1	M-117	OU-1	130-150	70.66	2	UMCf	
1	M-118	OU-1	138-158	65.75	2	UMCf	
1	M-149	OU-1	100-120	44.95	2	UMCf	
1	M-150	OU-1	125-145	23.20	2	UMCf	
1	M-151	OU-1	125-145	18.58	2	UMCf	
1	M-152	OU-2	125-145	26.93	2	UMCf	
1	M-153	OU-1	150-170	30.29	2	UMCf	
1	M-154	OU-1	175-195	11.45	2	UMCf	
1	M-156	OU-2	175-195	20.08	2	UMCf	
1	M-161	OU-1	100-110	24.01	2	UMCf	
1	M-161D	OU-1	130-140	16.39	4	UMCf	
1	M-162	OU-1	100-110	23.20	2	UMCf	
1	M-162D	OU-1	130-140	11.43	4	UMCf	
1	M-181	OU-1	105-115	27.96	2	UMCf	
1	M-186	OU-1	105-115	45.88	2	UMCf	
1	M-186D	OU-1	153-173	43.52	4	UMCf	
1	MC-MW-18	OU-1	96-116	44.41	4	UMCf	
1	MC-MW-39	OU-1	100-120	39.54	4	UMCf	
1	MC-MW-42	OU-1	96-116	36.61	4	UMCf	
1	TR-2	OU-1	145-175	25.81	4	UMCf	
1	TR-4	OU-1	125-145	36.20	4	UMCf	
1	TR-7	OU-1	260-290	9.39	4	UMCf	
1	TR-9	OU-1	230-250	34.76	4	UMCf	
2	M-5D	OU-1	60-70	33.36	4	UMCf	
2	M-14D	OU-1	70-80	31.30	4	UMCf	
2	M-21D	OU-1	40-55	37.27	4	UMCf	
2	M-22D	OU-1	55-65	29.36	4	UMCf	
2	M-36D	OU-1	55-65	32.09	4	UMCf	
2	M-39R	OU-1	25-40	29.8	4	QaI/UMCf	
2	M-65D	OU-1	60-70	33.10	4	UMCf	
2	M-66D	OU-1	60-70	31.39	4	UMCf	
2	M-72D	OU-1	60-70	31.87	4	UMCf	
2	M-81D	OU-1	60-70	34.66	4	UMCf	
2	M-83D	OU-1	60-70	29.51	4	UMCf	
2	M-125D	OU-1	60-70	34.52	4	UMCf	
2	M-140D	OU-1	60-70	33.10	4	UMCf	
2	M-195	OU-1	95-110	32.98	4	UMCf	
2	M-196	OU-1	90-105	37.25	4	UMCf	
2	M-197	OU-1	100-115	36.38	4	UMCf	

**TABLE D-1. Well Construction for Slug Test Wells
Nevada Environmental Response Trust Site
Henderson, Nevada**

RI Phase	Well	OU	Screened Interval (ft bgs) [a]	Pre-test Depth to Water (ft btoc)	Inner Casing Diameter (in) [a]	Screened Unit	Notes
2	M-198	OU-1	100-115	40.29	4	UMCf	
2	M-199	OU-1	90-105	35.26	4	UMCf	
2	M-200	OU-1	97-112	20.34	4	UMCf	
2	M-201	OU-1	62-72	38.17	4	UMCf	
2	M-202	OU-1	40-55	33.24	4	UMCf	
2	M-203	OU-1	30-50	22.92	4	UMCf	
2	M-204	OU-1	100-110	29.90	4	UMCf	
2	M-205	OU-1	30-50	31.55	4	UMCf	
2	M-206	OU-1	30-50	31.53	4	UMCf	
2	M-207	OU-1	25-45	33.68	4	Qal/UMCf	
2	M-208	OU-1	25-45	34.30	4	Qal/UMCf	
2	M-209	OU-1	50-60	34.37	4	UMCf	
2	M-210	OU-1	70-80	34.31	4	UMCf	
2	M-211	OU-1	25-45	37.10	4	Qal/UMCf	
2	M-212	OU-1	60-70	36.90	4	UMCf	
2	M-213	OU-1	100-110	36.90	4	UMCf	
2	M-214	OU-1	30-50	27.65	4	Qal/UMCf	[c]
2	M-215	OU-1	25-45	28.67	4	UMCf	
2	M-216	OU-1	25-45	27.64	4	UMCf	
2	M-217	OU-1	55-65	27.34	4	UMCf	
2	M-218	OU-1	100-110	17.28	4	UMCf	
2	M-219	OU-1	25-45	27.83	4	UMCf	
2	M-220	OU-1	60-70	40.05	4	UMCf	
2	M-221	OU-1	75-85	32.32	4	UMCf	
2	M-222	OU-1	100-110	27.78	4	UMCf	
2	M-223	OU-1	40-55	33.51	4	UMCf	
2	M-225	OU-1	100-120	29.48	4	UMCf	
2	M-226	OU-1	40-55	30.80	4	UMCf	
2	M-227	OU-1	60-80	31.22	4	UMCf	
2	M-229	OU-1	40-55	20.60	4	UMCf	
2	M-230	OU-1	70-90	20.24	4	UMCf	
2	M-231	OU-1	100-120	15.06	4	UMCf	
2	M-232	OU-1	100-120	33.74	4	UMCf	
2	M-233	OU-1	100-120	28.55	4	UMCf	
2	M-234	OU-1	65-85	35.85	4	UMCf	
2	M-235	OU-1	85-105	35.27	4	UMCf	
2	M-236	OU-1	85-105	37.10	4	UMCf	
2	M-237	OU-1	45-60	47.31	4	UMCf	
2	M-238	OU-1	90-110	48.40	4	UMCf	

**TABLE D-1. Well Construction for Slug Test Wells
Nevada Environmental Response Trust Site
Henderson, Nevada**

RI Phase	Well	OU	Screened Interval (ft bgs) [a]	Pre-test Depth to Water (ft btoc)	Inner Casing Diameter (in) [a]	Screened Unit	Notes
2	M-239	OU-1	65-85	42.62	4	UMCf	
2	M-240	OU-1	95-115	42.35	4	UMCf	
2	M-242	OU-1	38-53	28.13	4	UMCf	
2	M-243	OU-1	60-70	27.86	4	UMCf	
2	M-244	OU-1	90-105	26.65	4	UMCf	
2	M-245	OU-1	35-50	24.34	4	UMCf	
2	M-246	OU-1	60-70	24.70	4	UMCf	
2	M-260	OU-1	65-75	35.84	4	UMCf	
2	M-261	OU-1	60-75	32.43	4	UMCf	
2	M-262	OU-1	80-90	32.17	4	UMCf	
2	M-263	OU-1	60-70	32.3	4	UMCf	
2	M-264	OU-1	85-95	30.39	4	UMCf	
2	M-265	OU-1	60-70	33.36	4	UMCf	
2	M-266	OU-1	90-100	30.56	4	UMCf	
2	M-267	OU-1	80-95	43.75	4	UMCf	
2	M-268	OU-1	100-115	45.05	4	UMCf	
2	M-269	OU-1	60-70	33.04	4	UMCf	
2	M-270	OU-1	90-100	33.51	4	UMCf	
2	M-271	OU-1	125-135	22.01	4	UMCf	
2	PC-161	OU-2	9-34	6.73	2	Qal	
2	PC-162	OU-2	10-45	7.99	2	Qal/UMCf	
2	PC-163	OU-2	10-25	16.20	2	Qal/UMCf	
2	PC-164	OU-2	15-30	21.45	2	Qal	
2	PC-165	OU-2	13-38	12.17	2	Qal	
2	PC-166	OU-2	12-32	12.28	4	Qal	
2	PC-167	OU-2	15-35	10.97	2	Qal/UMCf	
2	PC-169	OU-2	15-30	23.22	2	Qal	
2	PC-170	OU-2	15-50	20.12	2	Qal/UMCf	[d]
2	PC-171	OU-2	15-30	20.49	2	Qal/UMCf	
2	PC-173	OU-2	15-50	26.43	2	Qal	
2	PC-174	OU-2	10-25	22.61	2	Qal	[c]
2	PC-175	OU-2	14-39	22.93	2	Qal	
2	PC-177	OU-2	45-60	22.05	4	UMCf	
2	PC-178	OU-3	55-70	24.82	4	UMCf	
2	PC-179	OU-2	55-70	11.94	4	UMCf	
2	PC-180	OU-2	35-50	27.22	4	UMCf	
2	PC-181	OU-2	35-45	26.50	4	UMCf	
2	PC-182	OU-2	55-65	26.44	4	UMCf	
2	PC-183	OU-2	75-85	23.19	4	UMCf	

**TABLE D-1. Well Construction for Slug Test Wells
Nevada Environmental Response Trust Site
Henderson, Nevada**

RI Phase	Well	OU	Screened Interval (ft bgs) [a]	Pre-test Depth to Water (ft btoc)	Inner Casing Diameter (in) [a]	Screened Unit	Notes
2	PC-184	OU-2	35-45	24.42	4	UMCf	
2	PC-185	OU-2	55-65	24.55	4	UMCf	
2	PC-186	OU-2	75-85	18.82	4	Qal	
2	PC-187	OU-2	20-35	25.63	4	UMCf	
2	PC-188	OU-2	45-55	31.90	4	UMCf	
2	PC-189	OU-2	50-60	29.86	4	UMCf	
2	PC-190	OU-2	50-60	11.24	2	Qal	
2	PC-191	OU-3	14-34	10.32	2	Qal	
2	PC-192	OU-2	10-25	15.03	4	UMCf	
2	PC-193	OU-2	35-50	16.15	4	UMCf	
2	PC-194	OU-2	35-50	10.12	4	UMCf	
2	PC-195	OU-2	44-59	29.88	4	UMCf	
2	PC-196	OU-2	60-75	30.67	4	UMCf	
2	PC-197	OU-3	60-75	26.96	4	UMCf	
3	AA-09	OU-2	30-70	39.12	4	Qal	
3	BEC-10	OU-2	73-88	56.43	4	UMCf	
3	DBMW-3	OU-2	19-39	27.41	4	Qal/UMCf	
3	DBMW-4	OU-3	10-30	25.49	4	Qal/UMCf	
3	DBMW-7	OU-2	50-70	57.78	4	UMCf	
3	DBMW-8	OU-2	48-68	56.53	4	UMCf	
3	DBMW-13	OU-2	45-75	44.64	4	UMCf	
3	DBMW-17	OU-2	52-72	65.19	4	Qal/UMCf	
3	ES-1	OU-2	95-110	46.80	4	UMCf	
3	ES-2	OU-2	35-55	45.61	4	Qal/UMCf	
3	ES-3	OU-2	25-45	36.18	4	Qal	
3	ES-4	OU-2	70-90	40.05	4	UMCf	
3	ES-5	OU-2	70-85	36.65	4	UMCf	
3	ES-6	OU-2	55-75	32.55	4	UMCf	
3	ES-7	OU-2	60-80	54.52	4	UMCf	
3	ES-8A	OU-2	60-80	49.14	4	UMCf	
3	ES-8B	OU-2	90-110	50.24	4	UMCf	
3	ES-10	OU-2	45-65	35.30	4	UMCf	
3	ES-11	OU-2	35-55	29.80	4	UMCf	
3	ES-12	OU-2	45-65	29.80	4	UMCf	
3	ES-13	OU-2	90-105	60.31	4	UMCf	
3	ES-19	OU-3	157-177	65.38	4	UMCf	
3	ES-20	OU-2	90-110	64.62	4	UMCf	
3	ES-21A	OU-3	30-50	29.32	4	UMCf	
3	ES-21B	OU-3	60-80	32.49	4	UMCf	

**TABLE D-1. Well Construction for Slug Test Wells
Nevada Environmental Response Trust Site
Henderson, Nevada**

RI Phase	Well	OU	Screened Interval (ft bgs) [a]	Pre-test Depth to Water (ft btoc)	Inner Casing Diameter (in) [a]	Screened Unit	Notes
3	ES-22A	OU-3	30-50	39.79	4	UMCf	
3	ES-22B	OU-3	60-80	41.78	4	UMCf	
3	ES-23A	OU-3	30-50	28.43	4	UMCf	
3	ES-23B	OU-3	170-190	37.03	4	UMCf	
3	ES-24	OU-3	60-80	24.72	4	UMCf	
3	ES-25A	OU-3	30-50	12.69	4	UMCf	
3	ES-25B	OU-3	60-80	28.51	4	UMCf	
3	ES-26	OU-3	60-80	18.58	4	UMCf	
3	ES-27	OU-3	60-80	46.06	4	Qal	
3	ES-28	OU-2	65-85	62.86	4	UMCf	
3	ES-29	OU-2	60-80	57.62	4	UMCf	
3	ES-30	OU-2	73-93	54.39	4	UMCf	
3	ES-31	OU-2	55-75	44.66	4	UMCf	
3	ES-32	OU-2	72-92	48.74	4	UMCf	
Unit Blg	M-251-60	OU-1	53-63	[b]	2	UMCf	
Unit Blg	M-251-100	OU-1	93-103	[b]	2	UMCf	
Unit Blg	M-252	OU-1	133-143	[b]	2	UMCf	
Unit Blg	M-253-60	OU-1	60-70	[b]	2	UMCf	
Unit Blg	M-253-100	OU-1	100-110	[b]	2	UMCf	
Unit Blg	M-254	OU-1	139-149	[b]	2	UMCf	
Unit Blg	M-255-60	OU-1	60-70	[b]	2	UMCf	
Unit Blg	M-255-100	OU-1	100-110	[b]	2	UMCf	
Unit Blg	M-256-60	OU-1	60-70	[b]	2	UMCf	
Unit Blg	M-256-100	OU-1	100-110	[b]	2	UMCf	

Notes:

ft bgs = feet below ground surface

ft btoc = feet below top of casing

[a] Additional well construction details available in Appendix A2.

[b] Depth to water not reported. Testing and results are described in Unit 4 and 5 Buildings Investigation Source Area Characterization Report (Tetra Tech 2020).

[c] Insufficient water column to conduct slug test.

[d] Well was slug tested but results were not usable.

**TABLE D-2. Individual Slug Test Results
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well ID	RI Phase	Test Date [a]	Test Type	Screened Across Water Table?	Analysis Method	K (ft/day)	Ss (ft ⁻¹)
M-117	1	1/13/2015	FH	No	KGS	0.010	3.4E-05
M-117	1	1/13/2015	RH	No	KGS	0.012	2.4E-05
M-117	1	1/13/2015	FH	No	KGS	0.010	3.4E-05
M-117	1	1/13/2015	RH	No	KGS	0.012	2.4E-05
M-118	1	1/13/2015	FH	No	KGS	0.047	6.7E-05
M-118	1	1/13/2015	RH	No	KGS	0.050	6.7E-05
M-149	1	1/21/2015	FH	No	KGS	0.0075	3.9E-05
M-149	1	1/21/2015	RH	No	KGS	0.0083	2.3E-05
M-150	1	1/16/2015	FH	No	KGS	0.0012	3.9E-05
M-150	1	1/16/2015	RH	No	KGS	0.0011	1.9E-05
M-151	1	1/19/2015	FH	No	KGS	0.0018	7.5E-06
M-151	1	1/19/2015	RH	No	KGS	0.0021	4.5E-06
M-152	1	1/14/2015	FH	No	KGS	0.058	3.9E-05
M-152	1	1/14/2015	RH	No	KGS	0.062	3.9E-05
M-153	1	1/20/2015	FH	No	KGS	0.0014	1.0E-05
M-153	1	1/20/2015	RH	No	KGS	0.0014	1.0E-05
M-154	1	1/15/2015	FH	No	KGS	0.0022	1.0E-04
M-154	1	1/15/2015	RH	No	KGS	0.0023	1.0E-04
M-156	1	1/22/2015	FH	No	KGS	0.00093	1.8E-06
M-161	1	1/15/2015	FH	No	KGS	0.012	1.9E-05
M-161	1	1/15/2015	RH	No	KGS	0.0082	5.3E-05
M-161D	1	2/9/2015	FH	No	KGS	0.024	3.7E-04
M-161D	1	2/9/2015	RH	No	KGS	0.028	2.0E-04
M-162	1	1/15/2015	FH	No	KGS	0.082	2.1E-04
M-162	1	1/15/2015	RH	No	KGS	0.086	2.3E-04
M-162D	1	2/10/2015	FH	No	KGS	0.0022	6.4E-07
M-181	1	1/19/2015	FH	No	KGS	0.21	1.8E-03
M-181	1	1/19/2015	FH	No	KGS	0.23	1.4E-03
M-181	1	1/19/2015	RH	No	KGS	0.24	1.8E-03
M-181	1	1/19/2015	RH	No	KGS	0.22	1.7E-03
M-186	1	1/20/2015	FH	No	KGS	0.23	1.1E-03
M-186	1	1/20/2015	FH	No	KGS	0.21	1.8E-03
M-186	1	1/20/2015	RH	No	KGS	0.26	1.1E-03
M-186	1	1/20/2015	RH	No	KGS	0.22	1.8E-03
M-186D	1	2/10/2015	FH	No	KGS	0.0051	1.2E-06

**TABLE D-2. Individual Slug Test Results
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well ID	RI Phase	Test Date [a]	Test Type	Screened Across Water Table?	Analysis Method	K (ft/day)	Ss (ft ⁻¹)
MC-MW-18	1	1/22/2015	FH	No	KGS	0.46	3.3E-06
MC-MW-18	1	1/22/2015	FH	No	KGS	0.44	1.6E-06
MC-MW-18	1	1/22/2015	RH	No	KGS	0.43	5.5E-06
MC-MW-18	1	1/22/2015	RH	No	KGS	0.45	1.1E-06
MC-MW-39	1	1/22/2015	FH	No	KGS	0.25	1.8E-06
MC-MW-39	1	1/22/2015	FH	No	KGS	0.22	4.5E-06
MC-MW-39	1	1/22/2015	RH	No	KGS	0.27	1.4E-06
MC-MW-42	1	1/22/2015	FH	No	KGS	0.011	2.2E-06
MC-MW-42	1	1/22/2015	RH	No	KGS	0.012	1.6E-06
TR-2	1	1/16/2015	FH	No	KGS	0.0039	1.9E-05
TR-2	1	1/16/2015	RH	No	KGS	0.0042	1.4E-05
TR-4	1	1/21/2015	FH	No	KGS	0.0031	2.3E-05
TR-4	1	1/21/2015	RH	No	KGS	0.0030	3.2E-05
TR-7	1	1/12/2015	FH	No	KGS	1.2	2.0E-06
TR-7	1	1/12/2015	FH	No	KGS	1.2	2.5E-06
TR-7	1	1/12/2015	RH	No	KGS	1.1	4.5E-06
TR-7	1	1/12/2015	RH	No	KGS	1.2	2.8E-06
TR-9	1	1/14/2015	FH	No	KGS	2.7	2.3E-06
TR-9	1	1/14/2015	FH	No	KGS	2.8	2.3E-06
TR-9	1	1/14/2015	RH	No	KGS	3.0	1.8E-06
TR-9	1	1/14/2015	RH	No	KGS	2.9	2.0E-06
M-5D	2	9/12/2017	FH	No	ZGD	0.39	--
M-14D	2	10/6/2017	FH	No	ZGD	1.3	--
M-14D	2	10/6/2017	RH	No	ZGD	0.60	--
M-21D	2	10/8/2017	FH	No	ZGD	3.0	--
M-21D	2	10/8/2017	RH	No	ZGD	3.0	--
M-21D	2	10/8/2017	FH	No	ZGD	3.0	--
M-21D	2	10/8/2017	RH	No	ZGD	3.0	--
M-21D	2	10/8/2017	FH	No	ZGD	3.3	--
M-21D	2	10/8/2017	RH	No	ZGD	3.3	--
M-21D	2	10/8/2017	FH	No	ZGD	3.4	--
M-21D	2	10/8/2017	RH	No	ZGD	3.2	--
M-22D	2	9/8/2017	FH	No	ZGD	0.11	--
M-36D	2	9/7/2017	FH	No	ZGD	1.4	--
M-36D	2	9/7/2017	RH	No	ZGD	1.5	--
M-36D	2	9/7/2017	FH	No	ZGD	1.5	--
M-36D	2	9/7/2017	RH	No	ZGD	1.6	--
M-36D	2	9/7/2017	FH	No	ZGD	1.9	--
M-36D	2	9/7/2017	RH	No	ZGD	1.2	--

**TABLE D-2. Individual Slug Test Results
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well ID	RI Phase	Test Date [a]	Test Type	Screened Across Water Table?	Analysis Method	K (ft/day)	Ss (ft ⁻¹)
M-36D	2	9/7/2017	FH	No	ZGD	0.82	--
M-36D	2	9/7/2017	RH	No	ZGD	2.7	--
M-39R	2	3/20/2019	FH	Yes	ZGD	8.0	--
M-39R	2	3/20/2019	RH	Yes	ZGD	6.7	--
M-39R	2	3/20/2019	FH	Yes	ZGD	7.8	--
M-39R	2	3/20/2019	RH	Yes	ZGD	7.8	--
M-39R	2	3/20/2019	FH	Yes	ZGD	13	--
M-39R	2	3/20/2019	RH	Yes	ZGD	17	--
M-65D	2	9/10/2017	FH	No	ZGD	0.059	--
M-66D	2	9/9/2017	FH	Yes	ZGD	0.22	--
M-72D	2	10/7/2017	FH	No	ZGD	0.12	--
M-81D	2	10/6/2017	FH	No	ZGD	0.24	--
M-83D	2	10/7/2017	FH	No	ZGD	0.036	--
M-125D	2	10/19/2017	FH	No	ZGD	1.8	--
M-125D	2	10/19/2017	RH	No	ZGD	1.5	--
M-140D	2	10/6/2017	FH	No	ZGD	0.056	--
M-195	2	10/22/2017	FH	No	ZGD	0.076	--
M-196	2	10/22/2017	FH	No	ZGD	0.035	--
M-197	2	10/21/2017	FH	No	ZGD	0.10	--
M-198	2	10/22/2017	FH	No	ZGD	0.015	--
M-199	2	10/21/2017	FH	No	ZGD	0.11	--
M-200	2	10/21/2017	FH	No	ZGD	0.69	--
M-200	2	10/21/2017	RH	No	ZGD	0.75	--
M-200	2	10/21/2017	FH	No	ZGD	0.69	--
M-200	2	10/21/2017	RH	No	ZGD	0.65	--
M-201	2	10/10/2017	FH	No	ZGD	4.3	--
M-201	2	10/10/2017	RH	No	ZGD	5.0	--
M-201	2	10/10/2017	FH	No	ZGD	3.9	--
M-201	2	10/10/2017	RH	No	ZGD	5.5	--
M-202	2	10/19/2017	FH	No	ZGD	1.5	--
M-202	2	10/19/2017	RH	No	ZGD	1.2	--
M-202	2	10/19/2017	FH	No	ZGD	1.4	--
M-202	2	10/19/2017	RH	No	ZGD	1.3	--
M-203	2	9/13/2017	FH	No	ZGD	0.73	--
M-203	2	9/13/2017	RH	No	ZGD	0.80	--
M-203	2	9/13/2017	FH	No	ZGD	0.74	--
M-203	2	9/13/2017	RH	No	ZGD	0.77	--
M-204	2	10/19/2017	FH	No	ZGD	0.0032	--

**TABLE D-2. Individual Slug Test Results
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well ID	RI Phase	Test Date [a]	Test Type	Screened Across Water Table?	Analysis Method	K (ft/day)	Ss (ft ⁻¹)
M-205	2	9/18/2017	FH	Yes	ZGD	0.93	--
M-205	2	9/18/2017	RH	Yes	ZGD	0.94	--
M-205	2	9/18/2017	FH	Yes	ZGD	0.91	--
M-205	2	9/18/2017	RH	Yes	ZGD	0.93	--
M-206	2	9/13/2017	FH	Yes	ZGD	3.0	--
M-206	2	9/13/2017	RH	Yes	ZGD	3.2	--
M-206	2	9/13/2017	FH	Yes	ZGD	3.0	--
M-206	2	9/13/2017	RH	Yes	ZGD	2.7	--
M-207	2	9/12/2017	FH	Yes	ZGD	21	--
M-207	2	9/12/2017	RH	Yes	ZGD	51	--
M-207	2	9/12/2017	FH	Yes	ZGD	18	--
M-207	2	9/12/2017	RH	Yes	ZGD	43	--
M-207	2	9/12/2017	FH	Yes	ZGD	150	--
M-207	2	9/12/2017	RH	Yes	ZGD	40	--
M-207	2	9/12/2017	FH	Yes	ZGD	54	--
M-207	2	9/12/2017	RH	Yes	ZGD	48	--
M-208	2	10/24/2017	FH	Yes	ZGD	0.60	--
M-209	2	9/11/2017	FH	No	ZGD	0.23	--
M-210	2	9/10/2017	FH	No	ZGD	0.052	--
M-211	2	9/11/2017	FH	Yes	ZGD	1.1	--
M-211	2	9/11/2017	RH	Yes	ZGD	1.4	--
M-212	2	9/11/2017	FH	No	ZGD	0.12	--
M-213	2	9/10/2017	FH	No	ZGD	0.043	--
M-215	2	10/8/2017	FH	Yes	ZGD	0.29	--
M-216	2	10/7/2017	FH	Yes	ZGD	0.83	--
M-217	2	10/7/2017	FH	No	ZGD	0.066	--
M-218	2	10/7/2017	FH	No	ZGD	0.016	--
M-219	2	10/6/2017	FH	Yes	ZGD	0.053	--
M-220	2	10/8/2017	FH	No	ZGD	0.066	--
M-221	2	9/8/2017	FH	No	ZGD	0.15	--
M-222	2	9/8/2017	FH	No	ZGD	0.010	--
M-223	2	10/17/2017	FH	No	ZGD	5.7	--
M-223	2	10/17/2017	RH	No	ZGD	5.8	--
M-223	2	10/17/2017	FH	No	ZGD	5.9	--
M-223	2	10/17/2017	RH	No	ZGD	5.7	--
M-225	2	10/17/2017	FH	No	ZGD	0.0066	--

**TABLE D-2. Individual Slug Test Results
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well ID	RI Phase	Test Date [a]	Test Type	Screened Across Water Table?	Analysis Method	K (ft/day)	Ss (ft ⁻¹)
M-226	2	10/17/2017	FH	No	ZGD	5.5	--
M-226	2	10/17/2017	RH	No	ZGD	5.4	--
M-226	2	10/17/2017	FH	No	ZGD	5.6	--
M-226	2	10/17/2017	RH	No	ZGD	5.4	--
M-226	2	10/17/2017	FH	No	ZGD	5.3	--
M-227	2	10/17/2017	FH	No	ZGD	0.93	--
M-227	2	10/17/2017	RH	No	ZGD	0.99	--
M-227	2	10/17/2017	FH	No	ZGD	1.0	--
M-227	2	10/17/2017	RH	No	ZGD	0.90	--
M-229	2	10/20/2017	FH	No	ZGD	1.2	--
M-229	2	10/20/2017	RH	No	ZGD	1.3	--
M-230	2	10/20/2017	FH	No	ZGD	0.038	--
M-231	2	10/21/2017	FH	No	ZGD	0.0030	--
M-232	2	10/16/2017	FH	No	ZGD	0.020	--
M-233	2	10/8/2017	FH	No	ZGD	0.026	--
M-234	2	10/11/2017	FH	No	ZGD	1.2	--
M-234	2	10/11/2017	RH	No	ZGD	1.3	--
M-234	2	10/11/2017	FH	No	ZGD	1.2	--
M-234	2	10/11/2017	RH	No	ZGD	1.3	--
M-235	2	10/11/2017	FH	No	ZGD	0.075	--
M-236	2	10/16/2017	FH	No	ZGD	0.25	--
M-237	2	10/10/2017	FH	Yes	ZGD	6.0	--
M-237	2	10/10/2017	RH	Yes	ZGD	6.1	--
M-237	2	10/10/2017	FH	Yes	ZGD	5.6	--
M-237	2	10/10/2017	RH	Yes	ZGD	6.2	--
M-238	2	10/10/2017	FH	No	ZGD	0.59	--
M-238	2	10/10/2017	RH	No	ZGD	0.53	--
M-239	2	10/9/2017	FH	No	ZGD	1.0	--
M-239	2	10/9/2017	RH	No	ZGD	1.1	--
M-239	2	10/9/2017	FH	No	ZGD	1.1	--
M-239	2	10/9/2017	RH	No	ZGD	1.0	--
M-239	2	10/9/2017	FH	No	ZGD	1.2	--
M-239	2	10/9/2017	RH	No	ZGD	1.2	--
M-239	2	10/9/2017	FH	No	ZGD	1.1	--
M-239	2	10/9/2017	RH	No	ZGD	1.0	--
M-240	2	10/9/2017	FH	No	ZGD	2.0	--
M-240	2	10/9/2017	RH	No	ZGD	2.0	--
M-240	2	10/9/2017	FH	No	ZGD	1.9	--
M-240	2	10/9/2017	RH	No	ZGD	1.9	--

**TABLE D-2. Individual Slug Test Results
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well ID	RI Phase	Test Date [a]	Test Type	Screened Across Water Table?	Analysis Method	K (ft/day)	Ss (ft ⁻¹)
M-242	2	10/18/2017	FH	No	ZGD	0.51	--
M-242	2	10/18/2017	RH	No	ZGD	0.50	--
M-243	2	10/18/2017	FH	No	ZGD	0.32	--
M-244	2	10/20/2017	FH	No	ZGD	0.045	--
M-244	2	10/20/2017	FH	No	ZGD	0.023	--
M-245	2	10/18/2017	FH	No	ZGD	0.73	--
M-245	2	10/18/2017	RH	No	ZGD	0.68	--
M-246	2	10/18/2017	FH	No	ZGD	0.92	--
M-260	2	3/21/2019	FH	No	ZGD	0.58	--
M-260	2	3/21/2019	RH	No	ZGD	0.57	--
M-261	2	3/22/2019	FH	No	ZGD	0.091	--
M-262	2	3/22/2019	FH	No	ZGD	0.022	--
M-263	2	3/21/2019	FH	No	ZGD	0.22	--
M-264	2	3/21/2019	FH	No	ZGD	0.017	--
M-265	2	3/21/2019	FH	No	ZGD	0.023	--
M-266	2	3/21/2019	FH	No	ZGD	0.0015	--
M-267	2	3/20/2019	FH	No	ZGD	0.060	--
M-268	2	3/20/2019	FH	No	ZGD	0.037	--
M-269	2	3/18/2019	FH	No	ZGD	0.081	--
M-270	2	3/18/2019	FH	No	ZGD	0.011	--
M-271	2	3/17/2019	FH	No	ZGD	0.0034	--
PC-161	2	9/26/2017	FH	No	ZGD	54	--
PC-161	2	9/26/2017	RH	No	ZGD	73	--
PC-161	2	9/26/2017	FH	No	ZGD	62	--
PC-161	2	9/26/2017	RH	No	ZGD	73	--
PC-162	2	9/25/2017	RH	No	SG	31	--
PC-163	2	9/24/2017	FH	No	ZGD	0.88	--
PC-163	2	9/24/2017	RH	No	ZGD	1.2	--
PC-163	2	9/24/2017	FH	No	ZGD	1.0	--
PC-163	2	9/24/2017	RH	No	ZGD	1.1	--
PC-164	2	10/2/2017	RH	Yes [c]	ZGD	5.1	--
PC-165	2	10/3/2017	FH	No	ZGD	51	--
PC-165	2	10/3/2017	RH	No	SG	47	--
PC-165	2	10/3/2017	FH	No	ZGD	66	--
PC-165	2	10/3/2017	RH	No	SG	42	--
PC-165	2	10/3/2017	FH	No	ZGD	52	--
PC-165	2	10/3/2017	RH	No	SG	47	--

**TABLE D-2. Individual Slug Test Results
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well ID	RI Phase	Test Date [a]	Test Type	Screened Across Water Table?	Analysis Method	K (ft/day)	Ss (ft ⁻¹)
PC-166	2	9/26/2017	FH	Yes [c]	ZGD	28	--
PC-166	2	9/26/2017	RH	Yes [c]	ZGD	43	--
PC-166	2	9/26/2017	FH	Yes [c]	ZGD	31	--
PC-166	2	9/26/2017	RH	Yes [c]	ZGD	36	--
PC-167	2	9/27/2017	FH	No	ZGD	5.8	--
PC-167	2	9/27/2017	RH	No	ZGD	6.0	--
PC-167	2	9/27/2017	FH	No	ZGD	6.2	--
PC-167	2	9/27/2017	RH	No	ZGD	3.2	--
PC-169	2	9/27/2017	FH	Yes	ZGD	32	--
PC-169	2	9/27/2017	RH	Yes	ZGD	110	--
PC-169	2	9/27/2017	FH	Yes	ZGD	63	--
PC-169	2	9/27/2017	RH	Yes	ZGD	72	--
PC-171	2	10/5/2017	FH	Yes	ZGD	10	--
PC-171	2	10/5/2017	RH	Yes	ZGD	10	--
PC-171	2	10/5/2017	FH	Yes	ZGD	11	--
PC-171	2	10/5/2017	RH	Yes	ZGD	9.4	--
PC-173	2	9/19/2017	FH	Yes	ZGD	45	--
PC-173	2	9/19/2017	RH	Yes	ZGD	31	--
PC-173	2	9/19/2017	FH	Yes	ZGD	73	--
PC-173	2	9/19/2017	RH	Yes	ZGD	18	--
PC-175	2	10/4/2017	FH	Yes	ZGD	13	--
PC-175	2	10/4/2017	RH	Yes	ZGD	21	--
PC-175	2	10/4/2017	FH	Yes	ZGD	15	--
PC-175	2	10/4/2017	RH	Yes	ZGD	13	--
PC-175	2	10/4/2017	FH	Yes	ZGD	16	--
PC-175	2	10/4/2017	RH	Yes	ZGD	19	--
PC-177	2	10/3/2017	FH	No	ZGD	0.038	--
PC-178	2	10/22/2017	FH	No	ZGD	0.14	--
PC-178	2	10/22/2017	FH	No	ZGD	0.14	--
PC-179	2	10/23/2017	FH	No	ZGD	0.026	--
PC-180	2	9/21/2017	FH	No	ZGD	0.25	--
PC-180	2	9/21/2017	RH	No	ZGD	0.16	--
PC-181	2	9/20/2017	FH	No	ZGD	0.51	--
PC-181	2	9/20/2017	RH	No	ZGD	0.47	--
PC-182	2	9/20/2017	FH	No	ZGD	0.065	--

**TABLE D-2. Individual Slug Test Results
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well ID	RI Phase	Test Date [a]	Test Type	Screened Across Water Table?	Analysis Method	K (ft/day)	Ss (ft ⁻¹)
PC-183	2	9/21/2017	FH	No	ZGD	0.98	--
PC-183	2	9/21/2017	RH	No	ZGD	0.60	--
PC-183	2	9/21/2017	FH	No	ZGD	1.2	--
PC-183	2	9/21/2017	RH	No	ZGD	0.64	--
PC-184	2	9/22/2017	FH	No	ZGD	0.033	--
PC-185	2	9/22/2017	FH	No	ZGD	0.53	--
PC-185	2	9/22/2017	RH	No	ZGD	0.50	--
PC-186	2	10/4/2017	FH	No	ZGD	43	--
PC-186	2	10/4/2017	RH	No	ZGD	42	--
PC-186	2	10/4/2017	FH	No	ZGD	43	--
PC-186	2	10/4/2017	RH	No	ZGD	47	--
PC-186	2	10/4/2017	FH	No	ZGD	44	--
PC-186	2	10/4/2017	RH	No	ZGD	48	--
PC-187	2	9/23/2017	FH	No	ZGD	0.25	--
PC-188	2	10/4/2017	FH	No	ZGD	0.91	--
PC-188	2	10/4/2017	RH	No	ZGD	0.78	--
PC-189	2	10/4/2017	FH	No	ZGD	0.065	--
PC-190	2	10/2/2017	FH	No	SG	79	--
PC-190	2	10/2/2017	FH	No	SG	87	--
PC-190	2	10/2/2017	RH	No	SG	97	--
PC-190	2	10/2/2017	FH	No	SG	92	--
PC-191	2	10/11/2017	FH	Yes [c]	ZGD	130	--
PC-191	2	10/11/2017	FH	Yes [c]	ZGD	88	--
PC-191	2	10/11/2017	RH	Yes [c]	ZGD	120	--
PC-191	2	10/11/2017	RH	Yes [c]	ZGD	70	--
PC-192	2	10/5/2017	FH	No	ZGD	0.67	--
PC-192	2	10/5/2017	RH	No	ZGD	0.37	--
PC-192	2	10/5/2017	FH	No	ZGD	0.43	--
PC-192	2	10/5/2017	RH	No	ZGD	0.26	--
PC-193	2	9/24/2017	FH	No	ZGD	2.2	--
PC-193	2	9/24/2017	RH	No	ZGD	1.8	--
PC-193	2	9/24/2017	FH	No	ZGD	2.2	--
PC-193	2	9/24/2017	RH	No	ZGD	2.7	--
PC-193	2	9/24/2017	FH	No	ZGD	2.4	--
PC-193	2	9/24/2017	RH	No	ZGD	2.2	--
PC-193	2	9/24/2017	FH	No	ZGD	2.5	--
PC-193	2	9/24/2017	RH	No	ZGD	2.4	--
PC-194	2	10/3/2017	FH	No	ZGD	0.10	--

**TABLE D-2. Individual Slug Test Results
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well ID	RI Phase	Test Date [a]	Test Type	Screened Across Water Table?	Analysis Method	K (ft/day)	Ss (ft ⁻¹)
PC-195	2	10/9/2017	FH	No	ZGD	1.5	--
PC-195	2	10/9/2017	RH	No	ZGD	1.8	--
PC-196	2	10/23/2017	FH	No	ZGD	0.29	--
PC-197	2	10/23/2017	FH	No	ZGD	0.077	--
PC-197	2	10/23/2017	FH	No	ZGD	0.086	--
AA-09	3	2/14/2018	FH	Yes	ZGD	2.6	--
AA-09	3	2/14/2018	FH	Yes	ZGD	2.5	--
AA-09	3	2/14/2018	RH	Yes	ZGD	3.9	--
AA-09	3	2/14/2018	RH	Yes	ZGD	3.2	--
BEC-10	3	2/20/2018	FH	No	ZGD	0.018	--
DBMW-13	3	2/19/2018	FH	Yes	ZGD	0.0085	--
DBMW-17	3	2/19/2018	FH	Yes	ZGD	16	--
DBMW-17	3	2/19/2018	FH	Yes	ZGD	15	--
DBMW-17	3	2/19/2018	RH	Yes	ZGD	16	--
DBMW-17	3	2/19/2018	RH	Yes	ZGD	18	--
DBMW-3	3	2/19/2018	FH	Yes	ZGD	0.23	--
DBMW-4	3	2/16/2018	FH	Yes	ZGD	6.6	--
DBMW-4	3	2/16/2018	FH	Yes	ZGD	7.0	--
DBMW-4	3	2/16/2018	RH	Yes	ZGD	6.9	--
DBMW-4	3	2/16/2018	RH	Yes	ZGD	6.6	--
DBMW-7	3	2/15/2018	FH	Yes	ZGD	2.8	--
DBMW-7	3	2/15/2018	FH	Yes	ZGD	2.8	--
DBMW-8	3	2/15/2018	FH	Yes	ZGD	1.0	--
ES-1	3	2/16/2018	FH	No	ZGD	0.13	--
ES-2	3	2/17/2018	FH	Yes	ZGD	10	--
ES-2	3	2/17/2018	FH	Yes	ZGD	8.9	--
ES-2	3	2/17/2018	RH	Yes	ZGD	8.5	--
ES-2	3	2/17/2018	RH	Yes	ZGD	9.4	--
ES-3	3	2/18/2018	FH	Yes	ZGD	7.6	--
ES-3	3	2/18/2018	FH	Yes	ZGD	7.6	--
ES-3	3	2/18/2018	RH	Yes	ZGD	8.6	--
ES-3	3	2/18/2018	RH	Yes	ZGD	8.7	--
ES-4	3	2/18/2018	FH	No	ZGD	0.097	--
ES-5	3	2/14/2018	FH	No	ZGD	0.017	--
ES-6	3	2/19/2018	FH	No	ZGD	0.91	--
ES-6	3	2/19/2018	FH	No	ZGD	0.89	--
ES-6	3	2/19/2018	RH	No	ZGD	0.91	--
ES-6	3	2/19/2018	RH	No	ZGD	0.97	--
ES-7	3	2/21/2018	FH	No	ZGD	0.0049	--

**TABLE D-2. Individual Slug Test Results
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well ID	RI Phase	Test Date [a]	Test Type	Screened Across Water Table?	Analysis Method	K (ft/day)	Ss (ft ⁻¹)
ES-8A	3	2/20/2018	FH	No	ZGD	0.54	--
ES-8A	3	2/20/2018	RH	No	ZGD	0.48	--
ES-8B	3	2/20/2018	FH	No	ZGD	0.37	--
ES-8B	3	2/20/2018	RH	No	ZGD	0.32	--
ES-10	3	4/13/2018	FH	No	ZGD	0.0060	--
ES-11	3	4/13/2018	FH	No	ZGD	0.084	--
ES-12	3	2/15/2018	FH	No	ZGD	1.9	--
ES-12	3	2/15/2018	FH	No	ZGD	1.8	--
ES-12	3	2/15/2018	RH	No	ZGD	1.7	--
ES-12	3	2/15/2018	RH	No	ZGD	1.6	--
ES-13	3	4/13/2018	FH	No	ZGD	0.0029	--
ES-19	3	4/12/2018	FH	No	ZGD	0.087	--
ES-20	3	2/19/2018	FH	No	ZGD	0.19	--
ES-21A	3	10/15/2018	FH	No	ZGD	0.38	--
ES-21B	3	10/15/2018	FH	No	ZGD	3.2	--
ES-21B	3	10/15/2018	FH	No	ZGD	3.1	--
ES-21B	3	10/15/2018	FH	No	ZGD	2.8	--
ES-21B	3	10/15/2018	FH	No	ZGD	3.3	--
ES-21B	3	10/15/2018	RH	No	ZGD	2.7	--
ES-21B	3	10/15/2018	RH	No	ZGD	2.5	--
ES-21B	3	10/15/2018	RH	No	ZGD	2.3	--
ES-21B	3	10/15/2018	RH	No	ZGD	2.7	--
ES-22A	3	10/16/2018	FH	Yes	ZGD	3.4	--
ES-22A	3	10/16/2018	FH	Yes	ZGD	3.9	--
ES-22A	3	10/16/2018	RH	Yes	ZGD	3.2	--
ES-22A	3	10/16/2018	RH	Yes	ZGD	3.4	--
ES-22B	3	10/16/2018	FH	No	ZGD	0.065	--
ES-23A	3	10/17/2018	FH	No	ZGD	0.52	--
ES-23A	3	10/17/2018	RH	No	ZGD	0.49	--
ES-23B	3	10/18/2018	FH	No	ZGD	0.090	--
ES-24	3	10/16/2018	FH	No	ZGD	0.012	--
ES-25A	3	4/12/2018	FH	No	ZGD	0.20	--
ES-25A	3	4/12/2018	RH	No	ZGD	0.072	--
ES-25B	3	4/12/2018	FH	No	--	[b]	--

**TABLE D-2. Individual Slug Test Results
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well ID	RI Phase	Test Date [a]	Test Type	Screened Across Water Table?	Analysis Method	K (ft/day)	Ss (ft ⁻¹)
ES-26	3	4/13/2018	FH	No	ZGD	0.58	--
ES-26	3	4/13/2018	FH	No	ZGD	0.58	--
ES-26	3	4/13/2018	RH	No	ZGD	0.53	--
ES-26	3	4/13/2018	RH	No	ZGD	0.53	--
ES-27	3	4/13/2018	FH	No	ZGD	0.26	--
ES-27	3	4/13/2018	RH	No	ZGD	0.30	--
ES-28	3	2/16/2018	FH	No	ZGD	3.0	--
ES-28	3	2/16/2018	FH	No	ZGD	3.2	--
ES-28	3	2/16/2018	RH	No	ZGD	3.0	--
ES-28	3	2/16/2018	RH	No	ZGD	3.0	--
ES-29	3	2/15/2018	FH	No	ZGD	1.1	--
ES-29	3	2/15/2018	FH	No	ZGD	1.2	--
ES-29	3	2/15/2018	RH	No	ZGD	1.1	--
ES-29	3	2/15/2018	RH	No	ZGD	1.2	--
ES-30	3	2/20/2018	FH	No	ZGD	0.40	--
ES-30	3	2/20/2018	RH	No	ZGD	0.36	--
ES-31	3	2/16/2018	FH	No	ZGD	3.6	--
ES-31	3	2/16/2018	FH	No	ZGD	2.7	--
ES-31	3	2/16/2018	RH	No	ZGD	2.6	--
ES-31	3	2/16/2018	RH	No	ZGD	2.8	--
ES-32	3	4/13/2018	FH	No	ZGD	0.046	--
M-251-60	Unit Blg [b]	11/21/2017	FH	No	BR	0.030	--
M-251-60	Unit Blg	11/21/2017	RH	No	BR	0.030	--
M-251-100	Unit Blg	11/22/2017	FH	No	BR	0.061	--
M-251-100	Unit Blg	11/22/2017	RH	No	BR	0.062	--
M-252	Unit Blg	11/27/2017	FH	No	BR	0.039	--
M-252	Unit Blg	11/27/2017	RH	No	BR	0.041	--
M-253-60	Unit Blg	11/20/2017	FH	No	BR	0.57	--
M-253-60	Unit Blg	11/20/2017	RH	No	BR	0.58	--
M-253-100	Unit Blg	11/22/2017	FH	No	BR	0.0061	--
M-253-100	Unit Blg	11/22/2017	RH	No	BR	0.0054	--
M-254	Unit Blg	11/27/2017	FH	No	BR	0.023	--
M-254	Unit Blg	11/27/2017	RH	No	BR	0.015	--
M-255-60	Unit Blg	11/28/2017	FH	No	BR	0.52	--
M-255-60	Unit Blg	11/28/2017	RH	No	BR	0.59	--
M-255-100	Unit Blg	11/29/2017	FH	No	BR	0.028	--
M-255-100	Unit Blg	11/29/2017	RH	No	BR	0.018	--

**TABLE D-2. Individual Slug Test Results
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well ID	RI Phase	Test Date [a]	Test Type	Screened Across Water Table?	Analysis Method	K (ft/day)	Ss (ft ⁻¹)
M-256-60	Unit Blg	11/21/2017	FH	No	BR	0.066	--
M-256-60	Unit Blg	11/21/2017	RH	No	BR	0.064	--
M-256-100	Unit Blg	11/29/2017	FH	No	BR	0.043	--
M-256-100	Unit Blg	11/29/2017	RH	No	BR	0.025	--

Notes:

FH = Falling Head

RH = Rising Head

Analysis Methods:

BR = Bouwer and Rice (1976)

KGS = Kansas Geological Survey (Hyder et al., 1994)

SG = Springer and Gelhar (1991)

ZGD = Zlotnick, Goss and Dufield (2010)

[a] Test start date shown for test series conducted over multiple days

[b] No water level recovery observed after one hour of monitoring

[c] Well screened across the water table in a zone of high conductivity. Only a brief interval of aquifer response data was available for analysis. Results are considered uncertain.

**TABLE D-3. Summary of Slug Test Results
Nevada Environmental Response Trust Site
Henderson, Nevada**

RI Phase	OU	Well	Screened Interval (ft bgs)	Screened Unit	Final K [a]	
					ft/day	cm/sec
1	OU-1	M-117	130-150	UMCf	0.011	3.88E-06
1	OU-1	M-118	138-158	UMCf	0.049	1.73E-05
1	OU-1	M-149	100-120	UMCf	0.0079	2.79E-06
1	OU-1	M-150	125-145	UMCf	0.0012	4.23E-07
1	OU-1	M-151	125-145	UMCf	0.0019	6.70E-07
1	OU-2	M-152	125-145	UMCf	0.060	2.12E-05
1	OU-1	M-153	150-170	UMCf	0.0014	4.94E-07
1	OU-1	M-154	175-195	UMCf	0.0022	7.76E-07
1	OU-2	M-156	175-195	UMCf	0.00093	3.28E-07
1	OU-1	M-161	100-110	UMCf	0.0082	2.89E-06
1	OU-1	M-161D	130-140	UMCf	0.026	9.17E-06
1	OU-1	M-162	100-110	UMCf	0.084	2.96E-05
1	OU-1	M-162D	130-140	UMCf	0.0022	7.76E-07
1	OU-1	M-181	105-115	UMCf	0.22	7.76E-05
1	OU-1	M-186	105-115	UMCf	0.23	8.11E-05
1	OU-1	M-186D	153-173	UMCf	0.0051	1.80E-06
1	OU-1	MC-MW-18	96-116	UMCf	0.44	1.55E-04
1	OU-1	MC-MW-39	100-120	UMCf	0.25	8.82E-05
1	OU-1	MC-MW-42	96-116	UMCf	0.011	3.88E-06
1	OU-1	TR-2	145-175	UMCf	0.0040	1.41E-06
1	OU-1	TR-4	125-145	UMCf	0.0030	1.06E-06
1	OU-1	TR-7	260-290	UMCf	1.2	4.23E-04
1	OU-1	TR-9	230-250	UMCf	2.9	1.02E-03
2	OU-1	M-5D	60-70	UMCf	0.39	1.38E-04
2	OU-1	M-14D	70-80	UMCf	0.97	3.42E-04
2	OU-1	M-21D	40-55	UMCf	3.0	1.06E-03
2	OU-1	M-22D	55-65	UMCf	0.11	3.88E-05
2	OU-1	M-36D	55-65	UMCf	1.5	5.29E-04
2	OU-1	M-39R	25-40	Qal/UMCf	11	3.71E-03
2	OU-1	M-65D	60-70	UMCf	0.059	2.08E-05
2	OU-1	M-66D	60-70	UMCf	0.22	7.76E-05
2	OU-1	M-72D	60-70	UMCf	0.12	4.23E-05
2	OU-1	M-81D	60-70	UMCf	0.24	8.47E-05
2	OU-1	M-83D	60-70	UMCf	0.036	1.27E-05
2	OU-1	M-125D	60-70	UMCf	1.7	6.00E-04
2	OU-1	M-140D	60-70	UMCf	0.056	1.98E-05
2	OU-1	M-195	95-110	UMCf	0.076	2.68E-05
2	OU-1	M-196	90-105	UMCf	0.035	1.23E-05
2	OU-1	M-197	100-115	UMCf	0.10	3.53E-05

**TABLE D-3. Summary of Slug Test Results
Nevada Environmental Response Trust Site
Henderson, Nevada**

RI Phase	OU	Well	Screened Interval (ft bgs)	Screened Unit	Final K [a]	
					ft/day	cm/sec
2	OU-1	M-198	100-115	UMCf	0.015	5.29E-06
2	OU-1	M-199	90-105	UMCf	0.11	3.88E-05
2	OU-1	M-200	97-112	UMCf	0.69	2.43E-04
2	OU-1	M-201	62-72	UMCf	4.8	1.69E-03
2	OU-1	M-202	40-55	UMCf	1.4	4.94E-04
2	OU-1	M-203	30-50	UMCf	0.75	2.65E-04
2	OU-1	M-204	100-110	UMCf	0.0032	1.13E-06
2	OU-1	M-205	30-50	UMCf	0.94	3.32E-04
2	OU-1	M-206	30-50	UMCf	2.9	1.02E-03
2	OU-1	M-207	25-45	Qal/UMCf	47	1.66E-02
2	OU-1	M-208	25-45	Qal/UMCf	0.60	2.12E-04
2	OU-1	M-209	50-60	UMCf	0.23	8.11E-05
2	OU-1	M-210	70-80	UMCf	0.052	1.83E-05
2	OU-1	M-211	25-45	Qal/UMCf	1.4	4.94E-04
2	OU-1	M-212	60-70	UMCf	0.12	4.23E-05
2	OU-1	M-213	100-110	UMCf	0.043	1.52E-05
2	OU-1	M-215	25-45	UMCf	0.29	1.02E-04
2	OU-1	M-216	25-45	UMCf	0.83	2.93E-04
2	OU-1	M-217	55-65	UMCf	0.066	2.33E-05
2	OU-1	M-218	100-110	UMCf	0.016	5.64E-06
2	OU-1	M-219	25-45	UMCf	0.053	1.87E-05
2	OU-1	M-220	60-70	UMCf	0.066	2.33E-05
2	OU-1	M-221	75-85	UMCf	0.15	5.29E-05
2	OU-1	M-222	100-110	UMCf	0.010	3.53E-06
2	OU-1	M-223	40-55	UMCf	5.7	2.01E-03
2	OU-1	M-225	100-120	UMCf	0.0066	2.33E-06
2	OU-1	M-226	40-55	UMCf	5.5	1.94E-03
2	OU-1	M-227	60-80	UMCf	0.94	3.32E-04
2	OU-1	M-229	40-55	UMCf	1.3	4.59E-04
2	OU-1	M-230	70-90	UMCf	0.038	1.34E-05
2	OU-1	M-231	100-120	UMCf	0.0030	1.06E-06
2	OU-1	M-232	100-120	UMCf	0.020	7.06E-06
2	OU-1	M-233	100-120	UMCf	0.026	9.17E-06
2	OU-1	M-234	65-85	UMCf	1.2	4.23E-04
2	OU-1	M-235	85-105	UMCf	0.075	2.65E-05
2	OU-1	M-236	85-105	UMCf	0.25	8.82E-05
2	OU-1	M-237	45-60	UMCf	6.1	2.15E-03
2	OU-1	M-238	90-110	UMCf	0.56	1.98E-04
2	OU-1	M-239	65-85	UMCf	1.1	3.88E-04

**TABLE D-3. Summary of Slug Test Results
Nevada Environmental Response Trust Site
Henderson, Nevada**

RI Phase	OU	Well	Screened Interval (ft bgs)	Screened Unit	Final K [a]	
					ft/day	cm/sec
2	OU-1	M-240	95-115	UMCf	1.9	6.70E-04
2	OU-1	M-242	38-53	UMCf	0.50	1.76E-04
2	OU-1	M-243	60-70	UMCf	0.32	1.13E-04
2	OU-1	M-244	90-105	UMCf	0.034	1.20E-05
2	OU-1	M-245	35-50	UMCf	0.71	2.50E-04
2	OU-1	M-246	60-70	UMCf	0.92	3.25E-04
2	OU-1	M-260	65-75	UMCf	0.58	2.04E-04
2	OU-1	M-261	60-75	UMCf	0.091	3.19E-05
2	OU-1	M-262	80-90	UMCf	0.022	7.80E-06
2	OU-1	M-263	60-70	UMCf	0.22	7.73E-05
2	OU-1	M-264	85-95	UMCf	0.017	6.07E-06
2	OU-1	M-265	60-70	UMCf	0.023	8.01E-06
2	OU-1	M-266	90-100	UMCf	0.0015	5.29E-07
2	OU-1	M-267	80-95	UMCf	0.060	2.10E-05
2	OU-1	M-268	100-115	UMCf	0.037	1.29E-05
2	OU-1	M-269	60-70	UMCf	0.081	2.85E-05
2	OU-1	M-270	90-100	UMCf	0.011	3.81E-06
2	OU-1	M-271	125-135	UMCf	0.0034	1.20E-06
2	OU-2	PC-161	9-34	Qal	65	2.29E-02
2	OU-2	PC-162	10-45	Qal/UMCf	31	1.09E-02
2	OU-2	PC-163	10-25	Qal/UMCf	1.1	3.88E-04
2	OU-2	PC-164	15-30	Qal	5.1	1.80E-03
2	OU-2	PC-165	13-38	Qal	52	1.83E-02
2	OU-2	PC-166	12-32	Qal	39	1.38E-02
2	OU-2	PC-167	15-35	Qal/UMCf	5.2	1.83E-03
2	OU-2	PC-169	15-30	Qal	90	3.18E-02
2	OU-2	PC-171	15-30	Qal/UMCf	9.6	3.39E-03
2	OU-2	PC-173	15-50	Qal	18	6.35E-03
2	OU-2	PC-175	14-39	Qal	19	6.70E-03
2	OU-2	PC-177	45-60	UMCf	0.038	1.34E-05
2	OU-3	PC-178	55-70	UMCf	0.14	4.94E-05
2	OU-2	PC-179	55-70	UMCf	0.026	9.17E-06
2	OU-2	PC-180	35-50	UMCf	0.21	7.41E-05
2	OU-2	PC-181	35-45	UMCf	0.50	1.76E-04
2	OU-2	PC-182	55-65	UMCf	0.065	2.29E-05
2	OU-2	PC-183	75-85	UMCf	0.87	3.07E-04
2	OU-2	PC-184	35-45	UMCf	0.033	1.16E-05
2	OU-2	PC-185	55-65	UMCf	0.51	1.80E-04
2	OU-2	PC-186	75-85	Qal	44	1.55E-02

**TABLE D-3. Summary of Slug Test Results
Nevada Environmental Response Trust Site
Henderson, Nevada**

RI Phase	OU	Well	Screened Interval (ft bgs)	Screened Unit	Final K [a]	
					ft/day	cm/sec
2	OU-2	PC-187	20-35	UMCf	0.25	8.82E-05
2	OU-2	PC-188	45-55	UMCf	0.82	2.89E-04
2	OU-2	PC-189	50-60	UMCf	0.065	2.29E-05
2	OU-2	PC-190	50-60	Qal	89	3.14E-02
2	OU-3	PC-191	14-34	Qal	79	2.79E-02
2	OU-2	PC-192	10-25	UMCf	0.62	2.19E-04
2	OU-2	PC-193	35-50	UMCf	2.3	8.11E-04
2	OU-2	PC-194	35-50	UMCf	0.10	3.53E-05
2	OU-2	PC-195	44-59	UMCf	1.7	6.00E-04
2	OU-2	PC-196	60-75	UMCf	0.29	1.02E-04
2	OU-2	PC-197	60-75	UMCf	0.082	2.89E-05
3	OU-2	AA-09	30-70	Qal	3.6	1.27E-03
3	OU-2	BEC-10	73-88	UMCf	0.018	6.35E-06
3	OU-2	DBMW-3	19-39	Qal/UMCf	0.23	8.11E-05
3	OU-2	DBMW-4	10-30	Qal/UMCf	6.7	2.36E-03
3	OU-2	DBMW-7	50-70	UMCf	2.8	9.88E-04
3	OU-2	DBMW-8	48-68	UMCf	1.0	3.53E-04
3	OU-2	DBMW-13	45-75	UMCf	0.0085	3.00E-06
3	OU-2	DBMW-17	52-72	Qal/UMCf	17	6.00E-03
3	OU-2	ES-1	95-110	UMCf	0.13	4.59E-05
3	OU-2	ES-2	35-55	Qal/UMCf	9.0	3.18E-03
3	OU-2	ES-3	25-45	Qal	8.6	3.03E-03
3	OU-2	ES-4	70-90	UMCf	0.097	3.42E-05
3	OU-2	ES-5	70-85	UMCf	0.017	6.00E-06
3	OU-2	ES-6	55-75	UMCf	0.92	3.25E-04
3	OU-2	ES-7	60-80	UMCf	0.0049	1.73E-06
3	OU-2	ES-8A	60-80	UMCf	0.51	1.80E-04
3	OU-2	ES-8B	90-110	UMCf	0.34	1.20E-04
3	OU-2	ES-10	45-65	UMCf	0.006	2.12E-06
3	OU-2	ES-11	35-55	UMCf	0.084	2.96E-05
3	OU-2	ES-12	45-65	UMCf	1.8	6.35E-04
3	OU-2	ES-13	90-105	UMCf	0.0029	1.02E-06
3	OU-3	ES-19	157-177	UMCf	0.087	3.07E-05
3	OU-2	ES-20	90-110	UMCf	0.19	6.70E-05
3	OU-3	ES-21A	30-50	UMCf	0.38	1.34E-04
3	OU-3	ES-21B	60-80	UMCf	2.8	9.88E-04
3	OU-3	ES-22A	30-50	UMCf	3.3	1.16E-03
3	OU-3	ES-22B	60-80	UMCf	0.065	2.29E-05
3	OU-3	ES-23A	30-50	UMCf	0.50	1.76E-04

**TABLE D-3. Summary of Slug Test Results
Nevada Environmental Response Trust Site
Henderson, Nevada**

RI Phase	OU	Well	Screened Interval (ft bgs)	Screened Unit	Final K [a]	
					ft/day	cm/sec
3	OU-3	ES-23B	170-190	UMCf	0.09	3.18E-05
3	OU-3	ES-24	60-80	UMCf	0.012	4.23E-06
3	OU-3	ES-25A	30-50	UMCf	0.13	4.59E-05
3	OU-3	ES-26	60-80	UMCf	0.55	1.94E-04
3	OU-3	ES-27	60-80	Qal	0.28	9.88E-05
3	OU-2	ES-28	65-85	UMCf	3.1	1.09E-03
3	OU-2	ES-29	60-80	UMCf	1.2	4.23E-04
3	OU-2	ES-30	73-93	UMCf	0.38	1.34E-04
3	OU-2	ES-31	55-75	UMCf	2.9	1.02E-03
3	OU-2	ES-32	72-92	UMCf	0.046	1.62E-05
Unit Bldg [b]	OU-1	M-251-60	53-63	UMCf	0.030	1.06E-05
Unit Bldg	OU-1	M-251-100	93-103	UMCf	0.062	2.19E-05
Unit Bldg	OU-1	M-252	133-143	UMCf	0.040	1.41E-05
Unit Bldg	OU-1	M-253-60	60-70	UMCf	0.57	2.01E-04
Unit Bldg	OU-1	M-253-100	100-110	UMCf	0.0057	2.01E-06
Unit Bldg	OU-1	M-254	139-149	UMCf	0.019	6.70E-06
Unit Bldg	OU-1	M-255-60	60-70	UMCf	0.55	1.94E-04
Unit Bldg	OU-1	M-255-100	100-110	UMCf	0.023	8.11E-06
Unit Bldg	OU-1	M-256-60	60-70	UMCf	0.065	2.29E-05
Unit Bldg	OU-1	M-256-100	100-110	UMCf	0.034	1.20E-05

Notes:

[a] For wells screened below the water table, the results shown are the average of all slug tests conducted, excluding any unreliable results. For wells screened across the water table, the results shown are the average of rising head tests.

[b] Details of slug tests conducted as part of the Unit 4 and 5 buildings investigation are provided in the Unit 4 and 5 Buildings Investigation Source Area Characterization Report (Tetra Tech 2020).

**TABLE D-4. Slug Test Results from Pilot and Treatability Studies
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well Name	Test Date	K (ft/day)	Screened Interval (ft bgs)	Analysis Method	Test Purpose	OU	Lithology
CTIW-01D	12/9/2016	1.4	33 - 38	BR	Baseline	OU-1	UMCf
	10/31/2017	0.86	33 - 38	BR	Post-injection monitoring	OU-1	UMCf
CTIW-02D	4/10/2017	0.97	34 - 49	BR	Baseline	OU-1	UMCf
	11/1/2017	0.086	34 - 49	BR	Post-injection monitoring	OU-1	UMCf
CTIW-03D	4/10/2017	0.35	34 - 49	BR	Baseline	OU-1	UMCf
	11/1/2017	0.35	34 - 49	BR	Post-injection monitoring	OU-1	UMCf
CTMW-01D	4/10/2017	0.55	34 - 49	BR	Baseline	OU-1	UMCf
	10/4/2017	0.71	34 - 49	BR	Post-injection monitoring	OU-1	UMCf
CTMW-02D	4/10/2017	0.58	34 - 49	BR	Baseline	OU-1	UMCf
	10/4/2017	0.51	34 - 49	BR	Post-injection monitoring	OU-1	UMCf
CTMW-03D	12/9/2016	2.5	34 - 39	BR	Baseline	OU-1	UMCf
	10/5/2017	3.1	34 - 39	BR	Post-injection monitoring	OU-1	UMCf
CTMW-04D	4/10/2017	1.1	34 - 49	BR	Baseline	OU-1	UMCf
	10/5/2017	1.3	34 - 49	BR	Post-injection monitoring	OU-1	UMCf
CTMW-05D	10/5/2017	1.5	34 - 54	BR	Post-injection monitoring	OU-1	UMCf
CTMW-06D	10/4/2017	1	34 - 54	BR	Post-injection monitoring	OU-1	UMCf
E1-1	8/30/2016	2	22 - 47	BR	Baseline	OU-1	Qal/UMCf
E1-2	8/30/2016	0.55	22.5 - 47.5	BR	Baseline	OU-1	Qal/UMCf
E1-3	8/30/2016	0.45	22 - 47	BR	Baseline	OU-1	Qal/UMCf
E2-1	8/30/2016	2	26 - 51	BR	Baseline	OU-1	Qal/UMCf
E2-2	8/30/2016	2.3	28 - 53	BR	Baseline	OU-1	Qal/UMCf
E2-3	8/30/2016	3.7	27 - 52	BR	Baseline	OU-1	Qal/UMCf
E2-4	8/30/2016	2.7	24 - 49	BR	Baseline	OU-1	Qal/UMCf
E2-5	8/30/2016	0.71	29 - 54	BR	Baseline	OU-1	Qal/UMCf
ES-13	5/16/2018	0.001	90 - 105	BR	Baseline	OU-2	UMCf
GRTS-MW01A	5/14/2018	1.4	60 - 80	BR	Baseline	OU-2	--
GRTS-MW01B	5/15/2018	0.0036	90 - 110	BR	Baseline	OU-2	--
GRTS-MW02A	5/15/2018	0.0015	60 - 80	BR	Baseline	OU-2	--
GRTS-MW02B	5/16/2018	0.0017	90 - 110	BR	Baseline	OU-2	--
GRTS-MW03A	5/14/2018	1.1	65 - 75	BR	Baseline	OU-2	--
GRTS-MW03B	5/16/2018	0.0022	90 - 110	BR	Baseline	OU-2	--
GRTS-MW04A	5/14/2018	0.085	70 - 85	BR	Baseline	OU-2	--
GRTS-MW04B	5/15/2018	0.0024	89.5 - 109.5	BR	Baseline	OU-2	--
GRTS-MW05A	5/15/2018	0.057	60 - 70	BR	Baseline	OU-2	--
GRTS-MW05B	5/16/2018	0.014	75 - 85	BR	Baseline	OU-2	--
LVWPS-MW101A	5/22/2018	22	23.3 - 33	BR	Baseline	OU-3	Qal
LVWPS-MW101B	5/22/2018	1.6	44.8 - 64.5	BR	Baseline	OU-3	UMCf
LVWPS-MW102A	5/22/2018	3.5	47 - 66.6	BR	Baseline	OU-3	UMCf
LVWPS-MW102B	5/22/2018	1	76.8 - 96.5	BR	Baseline	OU-3	UMCf (Consolidated)
LVWPS-MW103A	5/22/2018	0.36	29.8 - 39.5	BR	Baseline	OU-3	UMCf
LVWPS-MW104	5/21/2018	2.9	23.8 - 33.5	BR	Baseline	OU-3	Qal
LVWPS-MW105	5/21/2018	3.9	16.5 - 26.2	BR	Baseline	OU-3	Qal
LVWPS-MW106	5/22/2018	1.3	30.4 - 50.1	BR	Baseline	OU-3	UMCf
LVWPS-MW107A	5/21/2018	85	24.8 - 34.5	BR	Baseline	OU-3	Qal
LVWPS-MW107B	5/21/2018	0.02	46 - 65.8	BR	Baseline	OU-3	UMCf
LVWPS-MW107C	5/21/2018	1.4	100.3 - 120	BR	Baseline	OU-3	UMCf (Consolidated)

**TABLE D-4. Slug Test Results from Pilot and Treatability Studies
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well Name	Test Date	K (ft/day)	Screened Interval (ft bgs)	Analysis Method	Test Purpose	OU	Lithology
LVWPS-MW108A	5/17/2018	15	20.8 - 40.7	BR	Baseline	OU-3	Qal
LVWPS-MW108B	5/17/2018	4.5	46.3 - 66	BR	Baseline	OU-3	UMCf
LVWPS-MW108C	5/18/2018	0.045	99.6 - 119.3	BR	Baseline	OU-3	UMCf (Consolidated)
LVWPS-MW109	5/18/2018	22	36.8 - 51.5	BR	Baseline	OU-3	Qal
LVWPS-MW110	5/21/2018	0.21	47.8 - 67.5	BR	Baseline	OU-3	UMCf
LVWPS-MW111A	5/21/2018	2.5	20.8 - 40.5	BR	Baseline	OU-3	Qal
LVWPS-MW111B	5/21/2018	1.9	57.8 - 77.5	BR	Baseline	OU-3	UMCf
LVWPS-MW112A	5/18/2018	72	28.8 - 48	SG	Baseline	OU-3	Qal
LVWPS-MW112B	5/18/2018	0.0013	54.3 - 74	BR	Baseline	OU-3	UMCf
LVWPS-MW201A	7/10/2018	20	28.2 - 47.8	BR	Baseline	OU-3	Qal
LVWPS-MW201B	7/10/2018	4.1	60.1 - 79.8	BR	Baseline	OU-3	UMCf
LVWPS-MW202	7/9/2018	96	41.8 - 61.5	SG	Baseline	OU-3	Qal
LVWPS-MW203A	7/10/2018	83	34.8 - 54.5	SG	Baseline	OU-3	Qal
LVWPS-MW203B	7/11/2018	0.087	75.1 - 94.7	BR	Baseline	OU-3	UMCf
LVWPS-MW204	7/10/2018	88	50.3 - 70	SG	Baseline	OU-3	Qal
LVWPS-MW204B	11/28/2018	0.34	101.5 - 121.2	BR	Baseline	OU-3	UMCf
LVWPS-MW205B	7/11/2018	110	64.9 - 84.6	SG	Baseline	OU-3	Qal
LVWPS-MW205C	7/11/2018	79	100.3 - 120	SG	Baseline	OU-3	Qal
LVWPS-MW206A	7/12/2018	83	39.8 - 59.5	SG	Baseline	OU-3	Qal
LVWPS-MW206B	7/12/2018	190	69.9 - 89.5	SG	Baseline	OU-3	Qal
LVWPS-MW206C	7/12/2018	3.9	100.3 - 120	BR	Baseline	OU-3	UMCf
LVWPS-MW206D	11/27/2018	0.37	125.3 - 145	BR	Baseline	OU-3	UMCf
LVWPS-MW206E	11/29/2018	0.31	195.5 - 205	BR	Baseline	OU-3	UMCf (Consolidated)
LVWPS-MW207	7/11/2018	89	68.1 - 87.8	SG	Baseline	OU-3	Qal
LVWPS-MW208A	7/11/2018	200	39.9 - 59.5	SG	Baseline	OU-3	Qal
LVWPS-MW208B	7/11/2018	60	65.3 - 85	SG	Baseline	OU-3	Qal
LVWPS-MW209	7/11/2018	83	71.3 - 91	SG	Baseline	OU-3	Qal
LVWPS-MW209A	11/29/2018	420	35.3 - 55	SG	Baseline	OU-3	Qal
LVWPS-MW209B	11/29/2018	38	110.3 - 130	SG	Baseline	OU-3	UMCf-cg
LVWPS-MW209C	11/26/2018	9.2	151 - 170.5	BR	Baseline	OU-3	UMCf-cg
LVWPS-MW210A	7/12/2018	79	35.3 - 55	SG	Baseline	OU-3	Qal
LVWPS-MW210B	7/13/2018	88	70.1 - 89.8	SG	Baseline	OU-3	Qal
LVWPS-MW210C	7/12/2018	0.23	100.3 - 120	BR	Baseline	OU-3	UMCf-cg
LVWPS-MW210D	11/29/2018	0.31	130.4 - 140	BR	Baseline	OU-3	UMCf-cg
LVWPS-MW210E	11/28/2018	0.42	145.5 - 165	BR	Baseline	OU-3	UMCf-cg
LVWPS-MW211	7/12/2018	95	50 - 69.7	SG	Baseline	OU-3	Qal
LVWPS-MW212A	7/13/2018	72	34.3 - 54	SG	Baseline	OU-3	Qal
LVWPS-MW212B	7/13/2018	9.8	59.8 - 79.5	BR	Baseline	OU-3	Qal
LVWPS-MW212C	11/28/2018	4	100.3 - 120	BR	Baseline	OU-3	UMCf-cg
LVWPS-MW212D	11/26/2018	0.73	125.5 - 145	BR	Baseline	OU-3	UMCf-cg
LVWPS-MW213	7/12/2018	90	40.1 - 59.8	SG	Baseline	OU-3	Qal
LVWPS-MW214	7/14/2018	140	34.4 - 44	SG	Baseline	OU-3	Qal
LVWPS-MW215A	7/14/2018	54	13.5 - 33.2	SG	Baseline	OU-3	Qal
LVWPS-MW215B	7/14/2018	0.41	40.7 - 45.3	BR	Baseline	OU-3	Bedrock
LVWPS-MW216	7/14/2018	6.1	10.4 - 20	BR	Baseline	OU-3	Qal
LVWPS-MW217A	11/28/2018	100	51.3 - 71	SG	Baseline	OU-3	Qal

**TABLE D-4. Slug Test Results from Pilot and Treatability Studies
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well Name	Test Date	K (ft/day)	Screened Interval (ft bgs)	Analysis Method	Test Purpose	OU	Lithology
LVWPS-MW217B	11/28/2018	0.92	100.3 - 120	BR	Baseline	OU-3	UMCf
LVWPS-MW217C	11/26/2018	0.4	155.5 - 175	BR	Baseline	OU-3	UMCf
LVWPS-MW218A	11/28/2018	83	35.3 - 55	SG	Baseline	OU-3	Qal
LVWPS-MW218B	11/29/2018	3.3	100.3 - 120	BR	Baseline	OU-3	UMCf/UMCf-cg
LVWPS-MW218C	11/28/2018	2.6	136 - 155.5	BR	Baseline	OU-3	UMCf/UMCf-cg
LVWPS-MW219A	11/28/2018	120	35.1 - 49.8	SG	Baseline	OU-3	Qal
LVWPS-MW219B	11/28/2018	1.9	75.3 - 95	BR	Baseline	OU-3	UMCf/Horse Springs
LVWPS-MW219C	11/27/2018	10	115.5 - 135	BR	Baseline	OU-3	UMCf/Horse Springs
LVWPS-MW220A	11/28/2018	79	60.3 - 80	SG	Baseline	OU-3	Qal
LVWPS-MW220B	11/27/2018	7.2	134.5 - 154	BR	Baseline	OU-3	UMCf-cg
LVWPS-MW221A	11/28/2018	9.1	50.3 - 70	BR	Baseline	OU-3	Qal
LVWPS-MW221B	11/27/2018	0.12	83.7 - 103.2	BR	Baseline	OU-3	UMCf/UMCf-cg
LVWPS-MW222A	11/27/2018	5.7	80.3 - 100	BR	Baseline	OU-3	UMCf/UMCf-cg
LVWPS-MW222B	11/27/2018	0.45	150.3 - 170	BR	Baseline	OU-3	UMCf-cg
LVWPS-MW222C	11/27/2018	0.37	214 - 233.5	BR	Baseline	OU-3	UMCf-cg
LVWPS-MW223A	11/27/2018	50	45.3 - 65	SG	Baseline	OU-3	Qal
LVWPS-MW223B	11/27/2018	79	70.3 - 90	SG	Baseline	OU-3	Qal
LVWPS-MW223C	11/28/2018	0.52	95.5 - 110	BR	Baseline	OU-3	UMCf
LVWPS-MW224A	11/29/2018	22	55.3 - 75	BR	Baseline	OU-3	Qal
LVWPS-MW224B	11/29/2018	1	106.8 - 126.5	BR	Baseline	OU-3	UMCf
LVWPS-MW224C	11/29/2018	0.073	174.5 - 194	BR	Baseline	OU-3	UMCf (Consolidated)
LVWPS-MW225A	11/29/2018	110	49.3 - 69	SG	Baseline	OU-3	Qal
LVWPS-MW225B	11/29/2018	1.3	90.5 - 110	BR	Baseline	OU-3	UMCf
LVWPS-MW226A	11/27/2018	89	40.3 - 55	SG	Baseline	OU-3	Qal
MCF-06B	5/15/2018	0.0028	67 - 82	BR	Baseline	OU-2	UMCf
MW-13	11/29/2018	120	38 - 48	SG	Baseline	OU-3	Qal
NERT4.93S1	7/12/2018	120	--	SG	Baseline	OU-3	--
PC-94	12/20/2017	3	9.5 - 19.5	BR	--	OU-3	Qal
	5/8/2018	2.5	9.5 - 19.5	BR	--	OU-3	Qal
SWFTS-IW01A	7/20/2017	6.8	15.8 - 25.6	BR	Baseline	OU-3	Qal
	12/22/2017	0.58	15.8 - 25.6	BR	Post-injection monitoring	OU-3	Qal
	5/10/2018	0.26	15.8 - 25.6	BR	Post-injection monitoring	OU-3	Qal
SWFTS-IW01B	7/20/2017	48	26.9 - 36.7	BR	Baseline	OU-3	Qal
SWFTS-IW02A	7/20/2017	25	16.8 - 26.6	BR	Baseline	OU-3	Qal
SWFTS-IW02B	7/20/2017	33	26.3 - 36.1	BR	Baseline	OU-3	Qal
SWFTS-IW03	7/18/2017	43	16.8 - 36.6	BR	Baseline	OU-3	Qal
SWFTS-IW04	7/18/2017	46	19.8 - 34.6	BR	Baseline	OU-3	Qal
SWFTS-IW05	7/20/2017	81	14.6 - 34.4	SG	Baseline	OU-3	Qal
	12/19/2017	0.036	14.6 - 34.4	BR	Post-injection monitoring	OU-3	Qal
	5/10/2018	0.13	14.6 - 34.4	BR	Post-injection monitoring	OU-3	Qal
SWFTS-IW06A	7/20/2017	35	16.8 - 26.6	BR	Baseline	OU-3	Qal
	12/19/2017	0.21	16.8 - 26.6	BR	Post-injection monitoring	OU-3	Qal
	5/10/2018	0.17	16.8 - 26.6	BR	Post-injection monitoring	OU-3	Qal

**TABLE D-4. Slug Test Results from Pilot and Treatability Studies
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well Name	Test Date	K (ft/day)	Screened Interval (ft bgs)	Analysis Method	Test Purpose	OU	Lithology
SWFTS-IW06B	7/20/2017	93	28.8 - 33.6	BR	Baseline	OU-3	Qal
SWFTS-IW07	7/24/2017	29	17.3 - 37.1	BR	Baseline	OU-3	Qal
SWFTS-IW08	7/19/2017	5.2	17.5 - 37.3	BR	Baseline	OU-3	Qal
	12/19/2017	0.057	17.5 - 37.3	BR	Post-injection monitoring	OU-3	Qal
	5/8/2018	0.048	17.5 - 37.3	BR	Post-injection monitoring	OU-3	Qal
SWFTS-IW09	7/25/2017	19	26.6 - 46.4	BR	Baseline	OU-3	Qal
	1/16/2018	0.74	26.6 - 46.4	BR	Post-injection monitoring	OU-3	Qal
	5/8/2018	0.11	26.6 - 46.4	BR	Post-injection monitoring	OU-3	Qal
SWFTS-IW10	7/25/2017	30	26.8 - 46.6	BR	Baseline	OU-3	Qal
SWFTS-IW11	7/24/2017	21	17.3 - 37.1	BR	Baseline	OU-3	Qal
	1/15/2018	0.015	17.3 - 37.1	BR	Post-injection monitoring	OU-3	Qal
	5/11/2018	0.85	17.3 - 37.1	BR	Post-injection monitoring	OU-3	Qal
SWFTS-IW12	7/19/2017	16	14.3 - 39.1	BR	Baseline	OU-3	Qal
SWFTS-IW13A	7/24/2017	9.5	15.8 - 25.6	BR	Baseline	OU-3	Qal
	1/15/2018	1.2	15.8 - 25.6	BR	Post-injection monitoring	OU-3	Qal
	5/10/2018	0.074	15.8 - 25.6	BR	Post-injection monitoring	OU-3	Qal
SWFTS-IW13B	7/24/2017	60	27.8 - 37.6	BR	Baseline	OU-3	Qal
	12/19/2017	0.12	27.8 - 37.6	BR	Post-injection monitoring	OU-3	Qal
	5/10/2018	0.11	27.8 - 37.6	BR	Post-injection monitoring	OU-3	Qal
SWFTS-IW14	7/19/2017	37	16.2 - 36.1	BR	Baseline	OU-3	Qal
SWFTS-IW15	7/19/2017	140	16.4 - 36.2	SG	Baseline	OU-3	Qal
	12/20/2017	0.058	16.4 - 36.2	BR	Post-injection monitoring	OU-3	Qal
	5/10/2018	0.051	16.4 - 36.2	BR	Post-injection monitoring	OU-3	Qal
SWFTS-IW16A	7/24/2017	24	17.3 - 27.1	BR	Baseline	OU-3	Qal
SWFTS-IW16B	7/24/2017	86	26.5 - 36.3	BR	Baseline	OU-3	Qal
SWFTS-IW17	7/24/2017	69	17.3 - 37.1	BR, SG	Baseline	OU-3	Qal
	12/21/2017	0.15	17.3 - 37.1	BR	Post-injection monitoring	OU-3	Qal
	5/11/2018	0.0075	17.3 - 37.1	BR	Post-injection monitoring	OU-3	Qal
SWFTS-IW18	7/18/2017	28	18.1 - 38.1	BR	Baseline	OU-3	Qal
	1/17/2018	0.18	18.1 - 38.1	BR	Post-injection monitoring	OU-3	Qal
SWFTS-IW19	7/25/2017	150	24.3 - 44.1	SG	Baseline	OU-3	Qal
	1/16/2018	0.15	24.3 - 44.1	BR	Post-injection monitoring	OU-3	Qal
	5/9/2018	0.3	24.3 - 44.1	BR	Post-injection monitoring	OU-3	Qal
SWFTS-IW20	7/18/2017	38	30.8 - 50.6	BR	Baseline	OU-3	Qal
	12/22/2017	0.027	30.8 - 50.6	BR	Post-injection monitoring	OU-3	Qal
	5/9/2018	0.006	30.8 - 50.6	BR	Post-injection monitoring	OU-3	Qal
SWFTS-MW01	4/17/2017	48	24.2 - 38.9	BR	Baseline	OU-3	Qal
SWFTS-MW02	4/18/2017	8.4	18.4 - 33.1	BR	Baseline	OU-3	Qal
SWFTS-MW03	4/17/2017	190	27.2 - 42.1	SG	Baseline	OU-3	Qal
	12/20/2017	240	27.2 - 42.1	SG	Post-injection monitoring	OU-3	Qal
	5/9/2018	150	27.2 - 42.1	SG	Post-injection monitoring	OU-3	Qal
SWFTS-MW04	4/14/2017	18	25.8 - 40.4	BR	Baseline	OU-3	Qal
SWFTS-MW05A	4/17/2017	6.8	19.3 - 29.3	BR	Baseline	OU-3	Qal

**TABLE D-4. Slug Test Results from Pilot and Treatability Studies
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well Name	Test Date	K (ft/day)	Screened Interval (ft bgs)	Analysis Method	Test Purpose	OU	Lithology
SWFTS-MW05B	4/17/2017	49	32.3 - 42	BR	Baseline	OU-3	Qal
	12/19/2017	49	32.3 - 42	BR	Post-injection monitoring	OU-3	Qal
	5/8/2018	66	32.3 - 42	BR	Post-injection monitoring	OU-3	Qal
SWFTS-MW06A	4/13/2017	5.8	11.8 - 21.4	BR	Baseline	OU-3	Qal
SWFTS-MW06B	4/18/2017	25	25.9 - 35.5	BR	Baseline	OU-3	Qal
SWFTS-MW07A	4/14/2017	2.8	15 - 29.5	BR	Baseline	OU-3	Qal
SWFTS-MW07B	4/14/2017	28	33.8 - 38.3	BR	Baseline	OU-3	Qal
SWFTS-MW08A	4/14/2017	1.3	20.2 - 34.8	BR	Baseline	OU-3	Qal
SWFTS-MW08C	4/14/2017	2.4	49.9 - 69.5	BR	Baseline	OU-3	UMCf
SWFTS-MW09A	4/14/2017	37	19.3 - 28.9	BR	Baseline	OU-3	Qal
	12/21/2017	37	19.3 - 28.9	BR	Post-injection monitoring	OU-3	Qal
	5/7/2018	42	19.3 - 28.9	BR	Post-injection monitoring	OU-3	Qal
SWFTS-MW09B	4/14/2017	330	34.4 - 39	SG	Baseline	OU-3	Qal
	12/19/2017	290	34.4 - 39	SG	Post-injection monitoring	OU-3	Qal
	5/7/2018	300	34.4 - 39	SG	Post-injection monitoring	OU-3	Qal
SWFTS-MW10A	4/14/2017	17	20.4 - 35	BR	Baseline	OU-3	Qal
	12/21/2017	21	20.4 - 35	BR	Post-injection monitoring	OU-3	Qal
	5/8/2018	17	20.4 - 35	BR	Post-injection monitoring	OU-3	Qal
SWFTS-MW10C	4/14/2017	2.4	43.5 - 63.1	BR	Baseline	OU-3	UMCf
SWFTS-MW11	7/18/2017	0.74	14.8 - 39.6	BR	Baseline	OU-3	Qal
SWFTS-MW12	7/18/2017	7.3	15.8 - 40.6	BR	Baseline	OU-3	Qal
SWFTS-MW13	7/18/2017	0.76	17.8 - 47.6	BR	Baseline	OU-3	Qal
SWFTS-MW14	7/24/2017	97	16.8 - 36.6	SG	Baseline	OU-3	Qal
	12/18/2017	82	16.8 - 36.6	SG	Post-injection monitoring	OU-3	Qal
	5/9/2018	13	16.8 - 36.6	BR, SG	Post-injection monitoring	OU-3	Qal
SWFTS-MW15	7/19/2017	43	14.8 - 34.6	BR	Baseline	OU-3	Qal
SWFTS-MW16	7/19/2017	51	21.8 - 41.6	BR	Baseline	OU-3	Qal
	12/19/2017	50	21.8 - 41.6	SG	Post-injection monitoring	OU-3	Qal
	5/9/2018	13	21.8 - 41.6	BR, SG	Post-injection monitoring	OU-3	Qal
SWFTS-MW17	7/18/2017	4.2	22.8 - 52.6	BR	Baseline	OU-3	Qal
SWFTS-MW18	7/25/2017	25	16.8 - 36.6	BR	Baseline	OU-3	Qal
SWFTS-MW19	7/20/2017	1.4	11.3 - 31.1	BR	Baseline	OU-3	Qal
SWFTS-MW20	7/19/2017	58	12.8 - 37.6	BR	Baseline	OU-3	Qal
SWFTS-MW21	7/18/2017	3.8	14.8 - 39.6	BR	Baseline	OU-3	Qal
	12/19/2017	4.1	14.8 - 39.6	BR	Post-injection monitoring	OU-3	Qal
	5/8/2018	30	14.8 - 39.6	SG	Post-injection monitoring	OU-3	Qal
SWFTS-MW22	7/20/2017	85	11.8 - 31.6	SG	Baseline	OU-3	Qal
SWFTS-MW23	7/20/2017	34	13.8 - 33.6	BR	Baseline	OU-3	Qal
SWFTS-MW24	7/20/2017	120	12.8 - 37.6	BR, SG	Baseline	OU-3	Qal
SWFTS-MW25	7/25/2017	82	12.8 - 42.6	SG	Baseline	OU-3	Qal
	12/18/2017	86	12.8 - 42.6	SG	Post-injection monitoring	OU-3	Qal
	5/8/2018	59	12.8 - 42.6	SG	Post-injection monitoring	OU-3	Qal
U4-E-01D	6/28/2018	0.055	94.7 - 109.7	BR	Baseline	OU-1	--
U4-E-01I	7/3/2018	1.4	74.6 - 89.6	BR	Baseline	OU-1	--

**TABLE D-4. Slug Test Results from Pilot and Treatability Studies
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well Name	Test Date	K (ft/day)	Screened Interval (ft bgs)	Analysis Method	Test Purpose	OU	Lithology
U4-E-02D	7/2/2018	0.062	94.4 - 109.4	BR	Baseline	OU-1	--
U4-E-02I	7/3/2018	1.3	74.4 - 89.4	BR	Baseline	OU-1	--
U4-E-04D	6/26/2018	0.53	95 - 110	BR	Baseline	OU-1	--
U4-E-04I	6/26/2018	1.8	75 - 90	BR	Baseline	OU-1	--
U4-E-05D	6/25/2018	0.38	95 - 110	BR	Baseline	OU-1	--
U4-E-05I	6/26/2018	1.5	75 - 90	BR	Baseline	OU-1	--
U4-MW-02D	6/27/2018	0.13	-- --	BR	Baseline	--	--
U4-MW-02I	6/28/2018	1.2	-- --	BR	Baseline	--	--
UFIW-01D	8/16/2016	1.9	43 - 48	BR	Baseline	OU-1	UMCf
UFIW-01I	8/16/2016	9.7	33 - 38	BR	Baseline	OU-1	UMCf
	4/11/2017	0.33	33 - 38	BR	Post-injection monitoring	OU-1	UMCf
	11/2/2017	1.4	33 - 38	BR	Post-injection monitoring	OU-1	UMCf
UFIW-02D	8/16/2016	1.4	43 - 48	BR	Baseline	OU-1	UMCf
UFIW-02I	8/17/2016	0.96	31 - 41	BR	Baseline	OU-1	UMCf
UFIW-03D	8/17/2016	7.3	45 - 50	BR	Baseline	OU-1	UMCf
UFIW-03I	8/17/2016	11	35 - 40	BR	Baseline	OU-1	UMCf
UFIW-04D	8/17/2016	4.6	43 - 48	BR	Baseline	OU-1	UMCf
UFIW-04I	8/17/2016	13	33 - 38	BR	Baseline	OU-1	UMCf
	4/11/2017	1.3	33 - 38	BR	Post-injection monitoring	OU-1	UMCf
	11/2/2017	1.9	33 - 38	BR	Post-injection monitoring	OU-1	UMCf
UFIW-05D	8/18/2016	0.5	44.5 - 49.5	BR	Baseline	OU-1	UMCf
UFIW-05I	8/18/2016	4.9	34.5 - 39.5	BR	Baseline	OU-1	UMCf
	4/11/2017	2.2	34.5 - 39.5	BR	Post-injection monitoring	OU-1	UMCf
	11/2/2017	0.88	34.5 - 39.5	BR	Post-injection monitoring	OU-1	UMCf
UFIW-06D	8/18/2016	0.94	47 - 52	BR	Baseline	OU-1	UMCf
UFIW-06I	8/18/2016	2.5	35 - 45	BR	Baseline	OU-1	UMCf
UFIW-07D	8/18/2016	2.1	46 - 51	BR	Baseline	OU-1	UMCf
UFIW-07I	8/18/2016	3.7	36 - 41	BR	Baseline	OU-1	UMCf
UFIW-08D	8/29/2016	1.2	45 - 50	BR	Baseline	OU-1	UMCf
UFIW-08I	8/18/2016	2.7	35 - 40	BR	Baseline	OU-1	UMCf
	4/11/2017	0.44	35 - 40	BR	Post-injection monitoring	OU-1	UMCf
	11/2/2017	0.34	35 - 40	BR	Post-injection monitoring	OU-1	UMCf
UFMW-01D	8/17/2016	1.8	44 - 49	BR	Baseline	OU-1	UMCf
	10/6/2017	3	44 - 49	BR	Post-injection monitoring	OU-1	UMCf
UFMW-01I	8/17/2016	1.3	34 - 39	BR	Baseline	OU-1	UMCf
	4/11/2017	1.9	34 - 39	BR	Post-injection monitoring	OU-1	UMCf
	10/6/2017	1.9	34 - 39	BR	Post-injection monitoring	OU-1	UMCf
UFMW-02D	8/17/2016	1.1	44 - 49	BR	Baseline	OU-1	UMCf
	10/6/2017	1.4	44 - 49	BR	Post-injection monitoring	OU-1	UMCf
UFMW-02I	8/17/2016	1	34 - 39	BR	Baseline	OU-1	UMCf
	10/6/2017	1.1	34 - 39	BR	Post-injection monitoring	OU-1	UMCf
UFMW-03D	8/17/2016	1.5	45 - 50	BR	Baseline	OU-1	UMCf
	10/6/2017	1.8	45 - 50	BR	Post-injection monitoring	OU-1	UMCf

**TABLE D-4. Slug Test Results from Pilot and Treatability Studies
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well Name	Test Date	K (ft/day)	Screened Interval (ft bgs)	Analysis Method	Test Purpose	OU	Lithology
UFMW-03I	8/17/2016	1.8	30 - 40	BR	Baseline	OU-1	UMCf
	4/11/2017	1.6	30 - 40	BR	Post-injection monitoring	OU-1	UMCf
	10/6/2017	1.8	30 - 40	BR	Post-injection monitoring	OU-1	UMCf
UFMW-04D	8/29/2016	4.6	44 - 49	BR	Baseline	OU-1	UMCf
	10/5/2017	5.4	44 - 49	BR	Post-injection monitoring	OU-1	UMCf
UFMW-04I	8/29/2016	2.6	34 - 39	BR	Baseline	OU-1	UMCf
	4/11/2017	3.4	34 - 39	BR	Post-injection monitoring	OU-1	UMCf
	10/5/2017	4.8	34 - 39	BR	Post-injection monitoring	OU-1	UMCf
UFMW-05D	8/19/2016	4.3	45 - 50	BR	Baseline	OU-1	UMCf
	10/6/2017	5.1	45 - 50	BR	Post-injection monitoring	OU-1	UMCf
UFMW-05I	8/29/2016	1.1	35 - 40	BR	Baseline	OU-1	UMCf
	10/6/2017	1.9	35 - 40	BR	Post-injection monitoring	OU-1	UMCf
UFMW-06D	8/29/2016	1.2	45 - 50	BR	Baseline	OU-1	UMCf
	10/5/2017	0.96	45 - 50	BR	Post-injection monitoring	OU-1	UMCf
UFMW-06I	8/29/2016	3.2	35 - 40	BR	Baseline	OU-1	UMCf
	4/11/2017	3.1	35 - 40	BR	Post-injection monitoring	OU-1	UMCf
	10/5/2017	4.8	35 - 40	BR	Post-injection monitoring	OU-1	UMCf

Notes:

-- = not available

ft/day = feet per day

ft bgs = feet below ground surface

K = Hydraulic conductivity

Qal = Alluvium

UMCf = Upper Muddy Creek formation

UMCf-cg = Upper Muddy Creek formation, coarse-grained

BR = Bouwer-Rice (1976)

SG = Springer-Gelhar (1991)

**TABLE D-5. Pumping Test Results from Pilot and Treatability Studies
Nevada Environmental Response Trust Site
Henderson, Nevada**

OU	Pumping Well	Test Date	Pumping Rate (gpm)	Test Duration (hrs)	Observation Well	Observation Well Screen Interval (ft bgs)	K (ft/day)	Storativity (-)	Analysis Method
OU-1	U4-E-02I	7/24/2018	6.38	48	U4-E-01D	94.7 - 109.7	0.58	1.2E-02	Hantush-Jacob (1955)/Hantush (1964), Leaky
					U4-E-01I	74.6 - 89.6	10	1.6E-02	Hantush-Jacob (1955)/Hantush (1964), Leaky
					U4-E-04D	95 - 110	2.4	6.9E-03	Hantush-Jacob (1955)/Hantush (1964), Leaky
					U4-E-04I	75 - 90	5.6	6.1E-03	Hantush-Jacob (1955)/Hantush (1964), Leaky
					U4-E-05D	95 - 110	1.4	6.8E-03	Hantush-Jacob (1955)/Hantush (1964), Leaky
					U4-E-05I	75 - 90	6.6	4.5E-07	Cooper-Jacob (1946), Confined
					U4-MW-02D	--	1.4	5.7E-03	Hantush-Jacob (1955)/Hantush (1964), Leaky
U4-MW-02I	--	4.4	9.6E-03	Hantush-Jacob (1955)/Hantush (1964), Leaky					
OU-1	U4-E-01D	7/30/2018	0.38	60	U4-E-01I	74.6 - 89.6	0.84	1.4E-03	Hantush-Jacob (1955)/Hantush (1964), Leaky
					U4-E-02D	94.4 - 109.4	0.054	4.0E-03	Hantush-Jacob (1955)/Hantush (1964), Leaky
					U4-E-04D	95 - 110	1.6	9.4E-06	Cooper-Jacob (1946), Confined
					U4-E-04I	75 - 90	2.7	8.8E-07	Cooper-Jacob (1946), Confined
					U4-E-05D	95 - 110	0.39	7.5E-04	Hantush-Jacob (1955)/Hantush (1964), Leaky
U4-MW-02D	--	0.13	8.8E-03	Hantush-Jacob (1955)/Hantush (1964), Leaky					

Notes:

-- = not available

(-) = unitless

ft/day = feet per day

ft bgs = feet below ground surface

gpm = gallons per minute

hrs = hours

K = Hydraulic conductivity

**TABLE D-6. Specific Capacity Test Results from Pilot and Treatability Studies
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well Name	Test Date	Lithology	Screened Interval (ft bgs)	Pumping Rate (gpm)	K (ft/day)	Analysis Method
CTIW-01D	2/28/2017	UMCf	33 - 38	0.40	1.5	Theis (1935), Confined
	4/7/2017	UMCf	33 - 38	0.79	1	Theis (1935), Confined
CTIW-01S	2/28/2017	Qal	18.5 - 23.5	0.13	61	Theis (1935), Unconfined
	2/28/2017	Qal	18.5 - 23.5	0.20	61	Theis (1935), Unconfined
CTIW-02D	4/7/2017	UMCf	34 - 49	0.18	0.63	Theis (1935), Confined
CTIW-02S	4/6/2017	Qal	19 - 24	0.32	30	Theis (1935), Unconfined
CTIW-03D	4/7/2017	UMCf	34 - 49	0.13	0.19	Theis (1935), Confined
CTIW-03S	4/6/2017	Qal	19 - 24	0.26	53	Theis (1935), Unconfined
CTMW-01D	4/7/2017	UMCf	34 - 49	0.08	0.54	Theis (1935), Confined
CTMW-01S	2/28/2017	Qal	19 - 24	0.26	15	Theis (1935), Unconfined
CTMW-02D	4/7/2017	UMCf	34 - 49	0.20	0.4	Theis (1935), Confined
CTMW-02S	4/6/2017	Qal	19 - 24	0.18	27	Theis (1935), Unconfined
CTMW-03D	2/28/2017	UMCf	34 - 39	0.53	3	Theis (1935), Confined
CTMW-03S	2/28/2017	Qal	19 - 24	0.13	75	Theis (1935), Unconfined
	10/9/2017	Qal	19 - 24	0.26	130	Theis (1935), Unconfined
	10/9/2017	Qal	19 - 24	0.26	120	Hantush-Jacob (1955)/Hantush (1964), Leaky
CTMW-04D	4/7/2017	UMCf	34 - 49	0.13	0.36	Theis (1935), Confined
CTMW-04S	4/7/2017	Qal	19 - 24	0.26	34	Theis (1935), Unconfined
	4/7/2017	Qal	19 - 24	0.13	23	Hantush-Jacob (1955)/Hantush (1964), Leaky
CTMW-05S	10/9/2017	Qal	19 - 24	0.13	46	Theis (1935), Unconfined
	10/9/2017	Qal	19 - 24	0.13	27	Hantush-Jacob (1955)/Hantush (1964), Leaky
CTMW-06S	10/9/2017	Qal	19 - 24	0.13	120	Theis (1935), Unconfined
	10/9/2017	Qal	19 - 24	0.13	91	Hantush-Jacob (1955)/Hantush (1964), Leaky
UFIW-06I	9/15/2016	UMCf	35 - 45	--	1	Hantush-Jacob (1955)/Hantush (1964), Leaky
	9/15/2016	UMCf	35 - 45	--	0.57	Theis (1935), Unconfined

**TABLE D-6. Specific Capacity Test Results from Pilot and Treatability Studies
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well Name	Test Date	Lithology	Screened Interval (ft bgs)	Pumping Rate (gpm)	K (ft/day)	Analysis Method
UFIW-06S	9/15/2016	Qal	27 - 32	--	11	Theis (1935), Unconfined
	9/15/2016	Qal	27 - 32	--	4.5	Theis (1935), Unconfined
UFMW-05S	10/10/2017	Qal	25 - 30	--	17	Cooper-Jacob (1946), Unconfined
UFMW-06S	10/10/2017	Qal	25 - 30	--	16	Cooper-Jacob (1946), Unconfined

Notes:

-- = not available

ft bgs = feet below ground surface

ft/day = feet per day

gpm = gallons per minute

K = Hydraulic conductivity

Qal = Alluvium

UMCf = Upper Muddy Creek formation

**TABLE D-7. Borehole Dilution Test Results
Nevada Environmental Response Trust Site
Henderson, Nevada**

Well	Screened Unit	UMCf Contact	Screen Interval	Borehole Diameter	Well Diameter	K	alpha	Sensor Depth	V _w	n _e	V _a
		feet bgs	feet bgs	inches	inches	ft/day	unitless	ft bgs	ft/day	ft ³ /ft ³	ft/day
ES-3	Qal	45	25 - 45	8	4	8.6	3.09	Sensor 3: 35	0.102	3 - 9%	0.37 - 1.1
ES-10	UMCf	15	45 - 65	8	4	0.006	3.20	Sensor 3: 55	0.0068	3 - 7%	0.030 - 0.071
								Sensor 2: 60	0.010	3 - 7%	0.045 - 0.106
								Sensor 1: 65	0.034	3 - 7%	0.15 - 0.35

Notes:

K = Hydraulic conductivity of aquifer based on slug test

V_w = Velocity in well

V_a = Groundwater velocity in aquifer, calculated using range of effective porosity values shown

n_e = Effective porosity

**TABLE D-8. Borehole Dilution Test Results from Pilot and Treatability Studies
Nevada Environmental Response Trust Site
Henderson, Nevada**

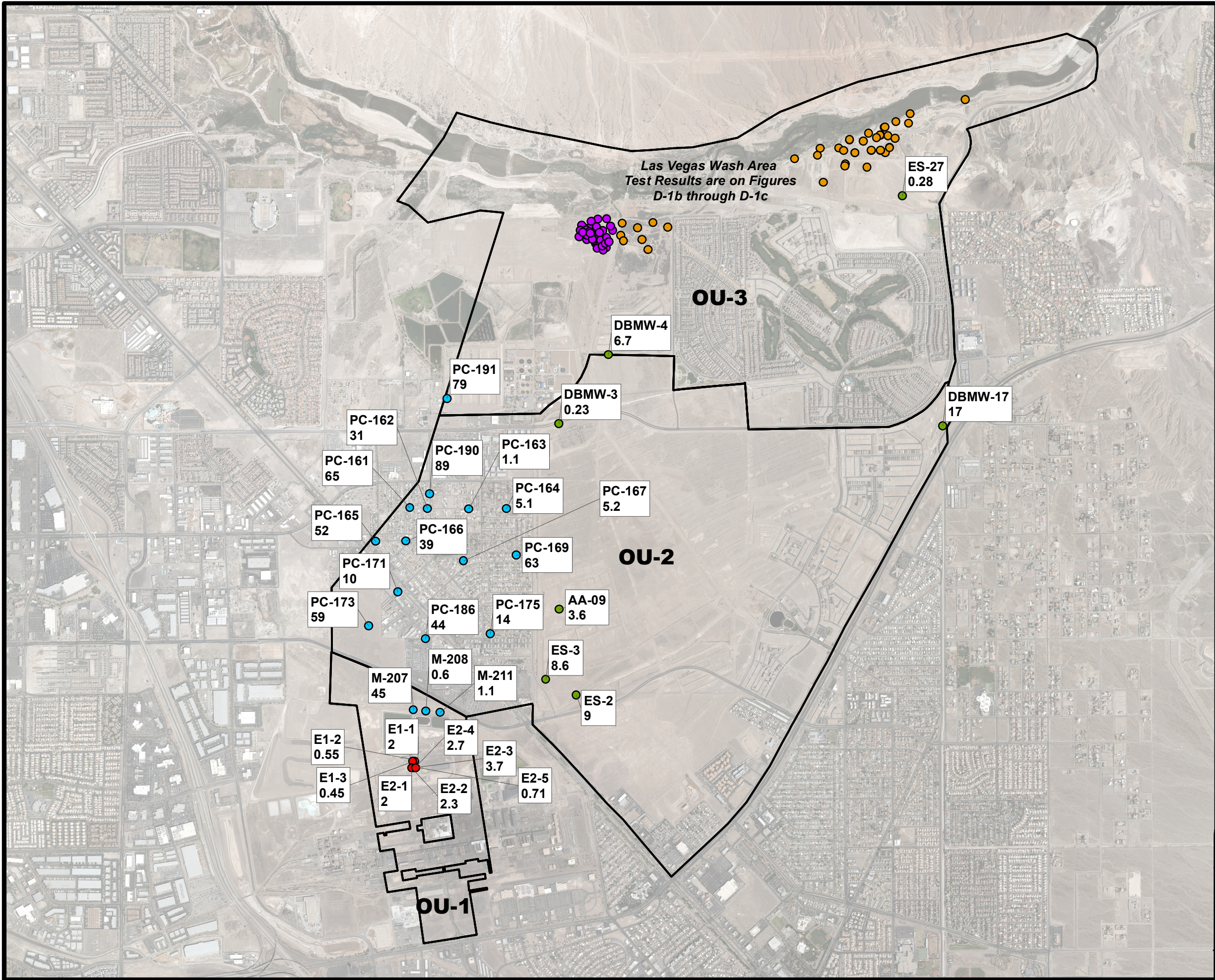
Well Name	Test Date	Groundwater Velocity (ft/day)	Analysis Method	Notes	Operable Unit	Lithology	Screened Interval (ft bgs)
GRTS-MW03A	6/18/2018	3.4	Pitrak et al. (2007), Halevy et al., 1969	[a]	OU-2	--	65 - 75
GRTS-MW03B	6/19/2018	0.0035	Pitrak et al. (2007), Halevy et al., 1969	--	OU-2	--	90 - 110
LVWPS-MW107A	6/20/2018	4.2	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	Qal	24.8 - 34.5
LVWPS-MW107B	6/21/2018	0.035	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	UMCf	46 - 65.8
LVWPS-MW201A	7/16/2018	91	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	Qal	28.2 - 47.8
LVWPS-MW203B	7/17/2018	0.012	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	UMCf	75.1 - 94.7
LVWPS-MW206B	7/19/2018	9.3	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	Qal	69.9 - 89.5
LVWPS-MW208A	7/17/2018	9.5	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	Qal	39.9 - 59.5
LVWPS-MW210A	1/7/2019	87	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	Qal	35.3 - 55
LVWPS-MW210B	1/9/2019	16	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	Qal	70.1 - 89.8
LVWPS-MW210C	1/7/2019	0.68	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	UMCf-cg	100.3 - 120
LVWPS-MW210D	1/16/2019	0.042	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	UMCf-cg	130.4 - 140
LVWPS-MW210E	1/17/2019	0.011	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	UMCf-cg	145.5 - 165
LVWPS-MW214	1/9/2019	220	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	Qal	34.4 - 44
LVWPS-MW217A	--	--	--	[b]	OU-3	Qal	51.3 - 71
LVWPS-MW217B	1/8/2019	0.63	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	UMCf	100.3 - 120
LVWPS-MW217C	1/16/2019	0.071	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	UMCf	155.5 - 175
LVWPS-MW220A	1/9/2019	28	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	Qal	60.3 - 80
LVWPS-MW220B	1/10/2019	1.2	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	UMCf-cg	134.5 - 154
LVWPS-MW222A	1/17/2019	0.33	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	UMCf/UMCf-cg	80.3 - 100
LVWPS-MW223A	1/11/2019	21	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	Qal	45.3 - 65
LVWPS-MW223B	1/15/2019	2.2	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	Qal	70.3 - 90
LVWPS-MW223C	1/11/2019	0.11	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	UMCf	95.5 - 110
SWFTS-MW07A	4/13/2017	0.071	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	Qal	15 - 29.5
SWFTS-MW08A	4/12/2017	1.8	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	Qal	20.2 - 34.8
SWFTS-MW09A	4/12/2017	12	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	Qal	19.3 - 28.9
SWFTS-MW10A	4/13/2017	120	Pitrak et al. (2007), Halevy et al., 1969	--	OU-3	Qal	20.4 - 35

Notes:

- = not available
- ft bgs = feet below ground surface
- ft/day = feet per day
- Qal = Alluvium
- UMCf = Upper Muddy Creek formation
- UMCf-cg = Upper Muddy Creek formation, coarse-grained
- [a] = Average velocity over two testing periods
- [b] = Test not analyzed (recovery was too rapid to measure)

FIGURES

Path: H:\LePeromani\NERT\RI_OU-1_OU-2_RI_Report\Appendix D Aquifer Testing\Figures\Slug_Attrivum.mxd

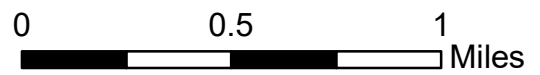


Legend

Slug Tests in Alluvium and Cross-Screened Wells

- Phase 2 RI
- Phase 3 RI
- AP Area Treatability Study
- Las Vegas Wash Bioremediation Pilot Study
- Seep Well Field Area Bioremediation Pilot Study

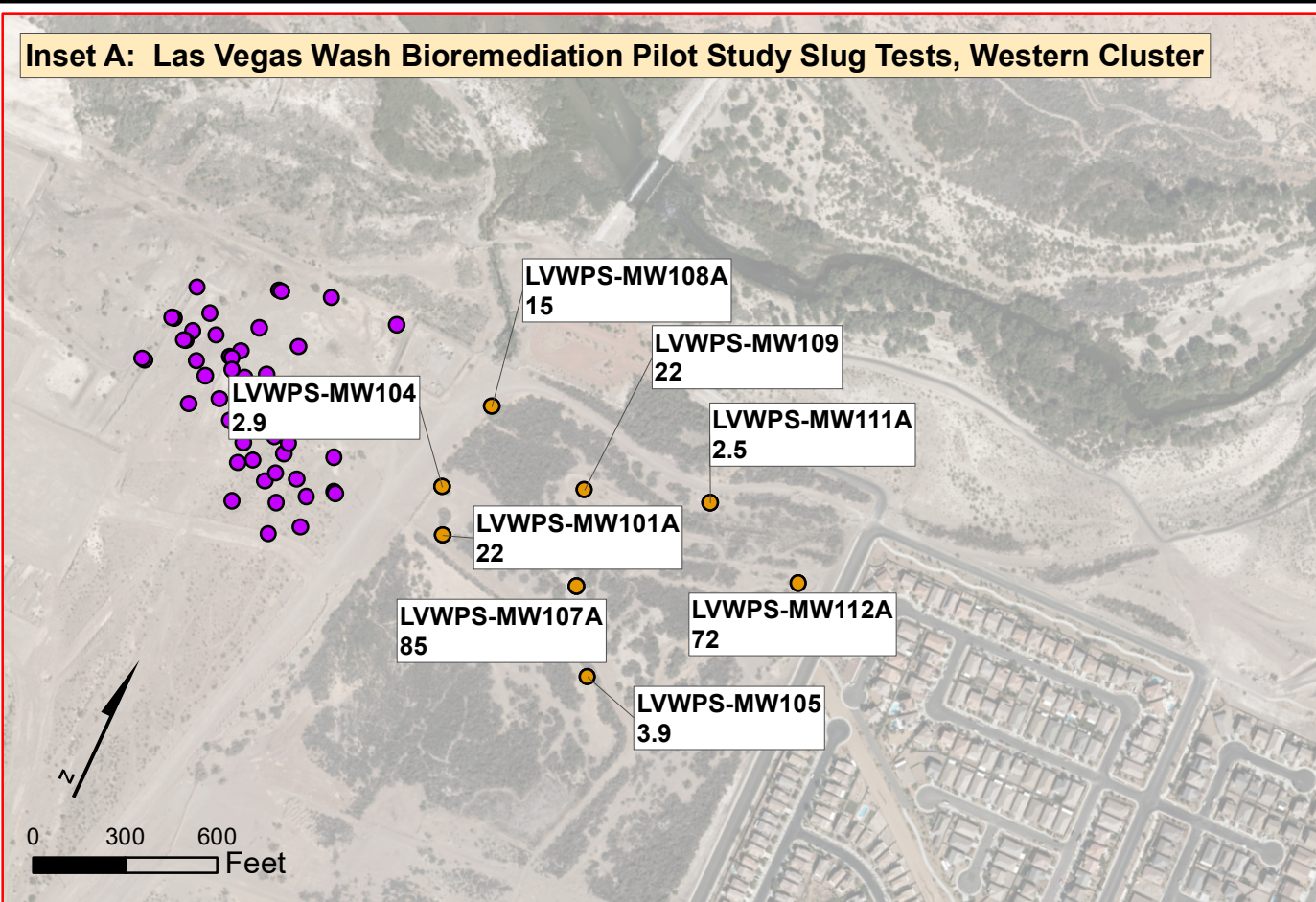
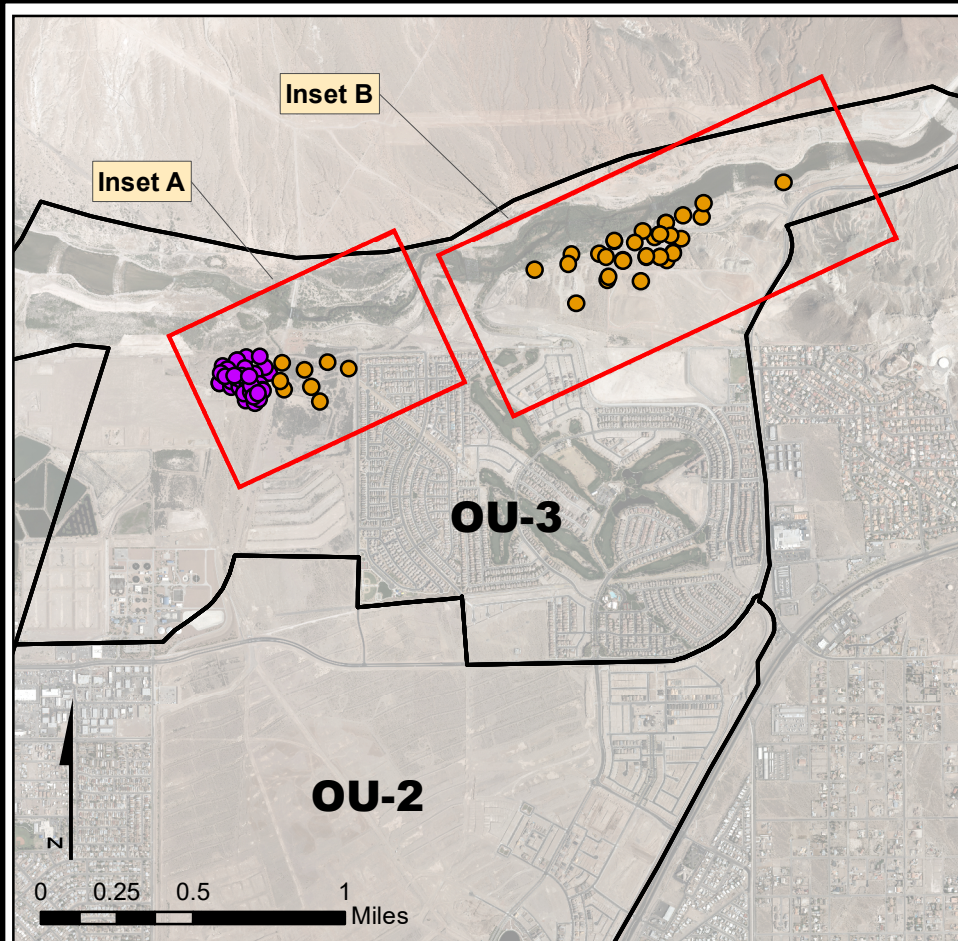
Well Name
K (ft/day)



Slug Tests in Alluvium and Cross-Screened Wells
Nevada Environmental Response Trust Site
Henderson, Nevada

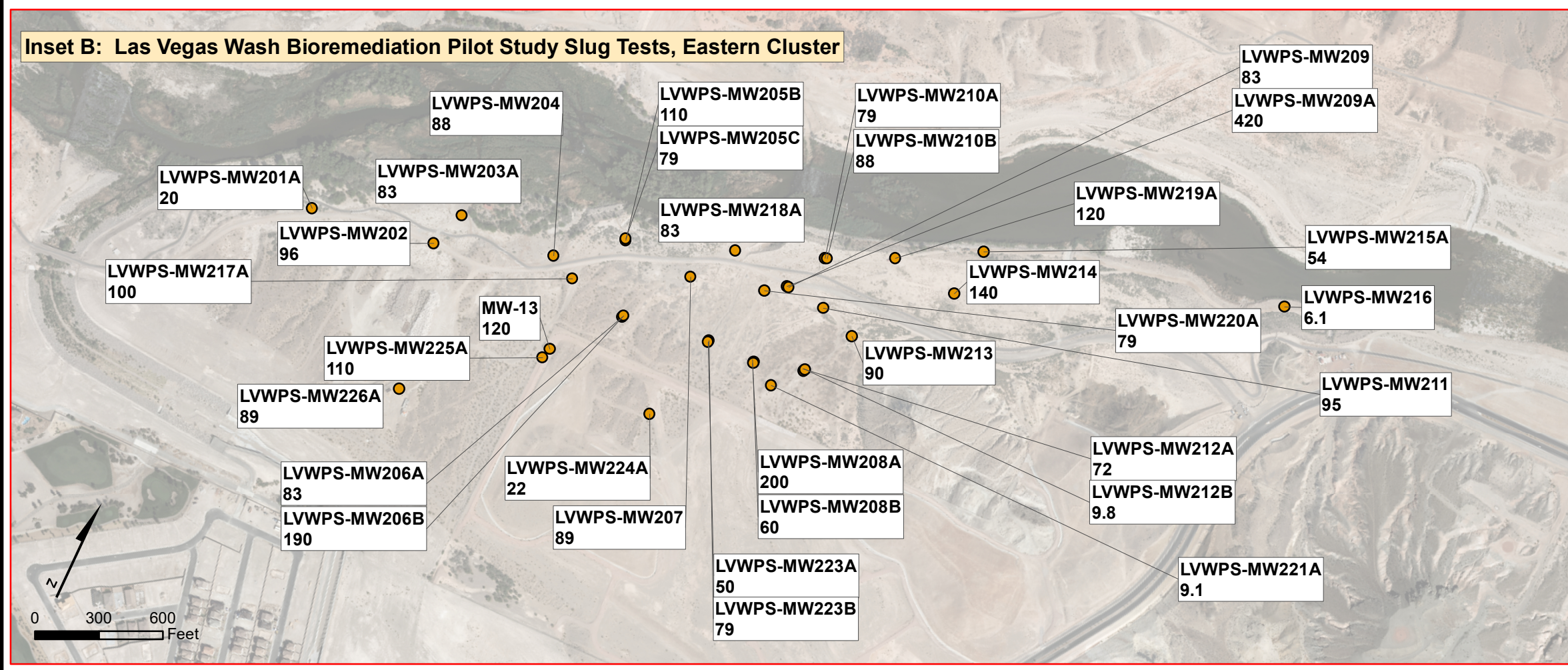
Date: 9/26/2019	Contract Number: 1690011200-050	Figure
Drafter: LAT	Approved:	Revised:

D-1a



Legend

- Las Vegas Wash Bioremediation Pilot Study
 - Seep Well Field Area Bioremediation Pilot Study
- Well Name (Alluvium or Cross-Screened) K (ft/day)**



Path: H:\LePeromane\NERT\RI_OU-2_RI\Report\Appendix D Aquifer Testing\Figures\Slug_Alluvium_insets.mxd

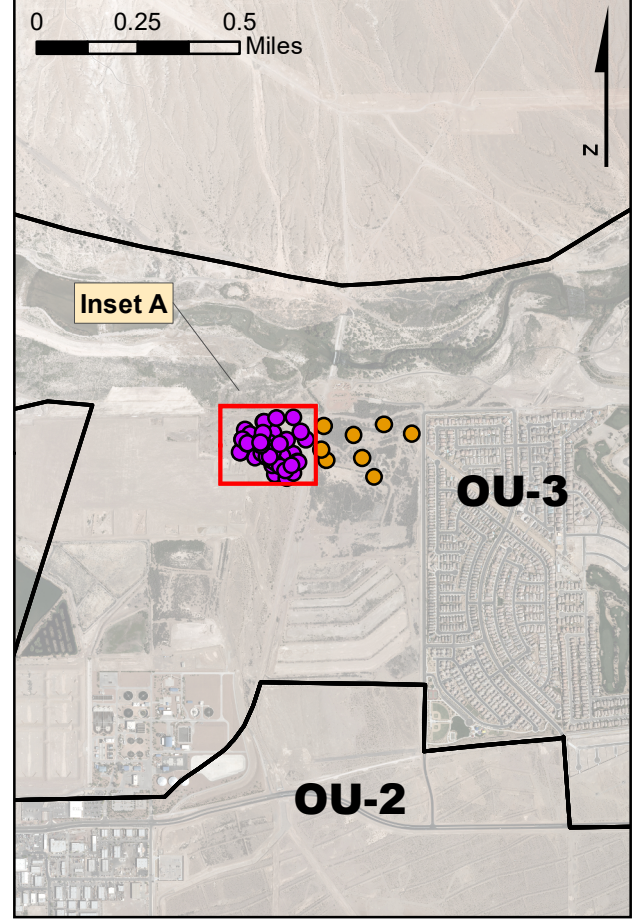
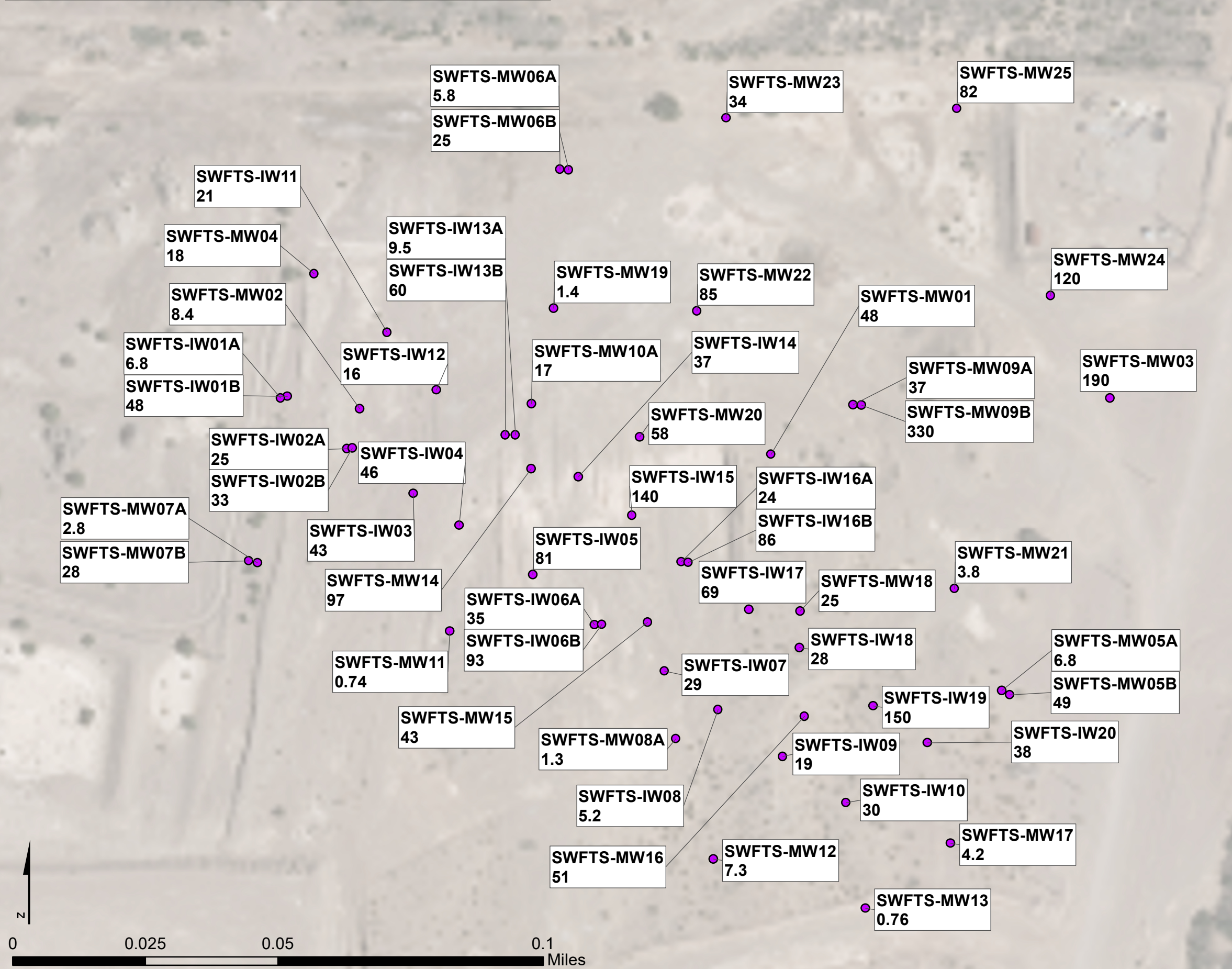


Slug Tests in Alluvium and Cross-Screened Wells Near Las Vegas Wash, Las Vegas Wash Bioremediation Pilot Study
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Date: 9/26/2019	Contract Number: 1690011200-050	Figure
Drafter: LAT/MS	Approved:	Revised:

D-1b

Inset A: Seep Well Field Area Bioremediation Pilot Study Slug Tests



Legend

- Las Vegas Wash Bioremediation Pilot Study
- Seep Well Field Area Bioremediation Pilot Study

Well Name (Alluvium or Cross-Screened)
K (ft/day)



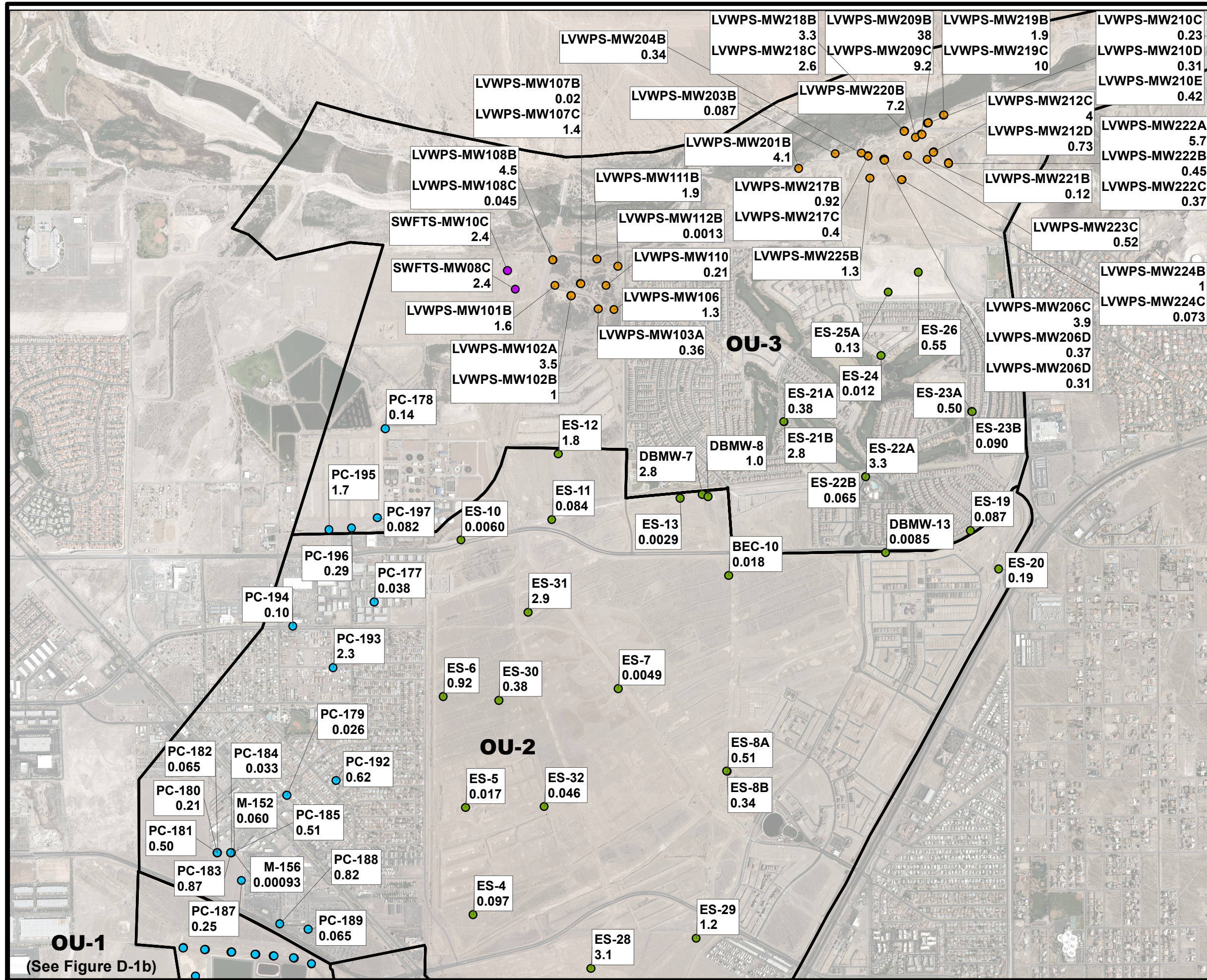
Slug Tests in Alluvium and Cross-Screened Wells Near Las Vegas Wash, Seep Well Field Area Bioremediation Pilot Study

Nevada Environmental Response Trust Site
Henderson, Nevada

Date: 9/25/2019	Contract Number: 1690011200-050	Figure
Drafter: LAT/MS	Approved:	Revised:

D-1c

Path: H:\LePermana\NERT\RI_OU-1_OU-2_RI_Report\Appendix D Aquifer Testing\Figures\Slug_UMCF.mxd



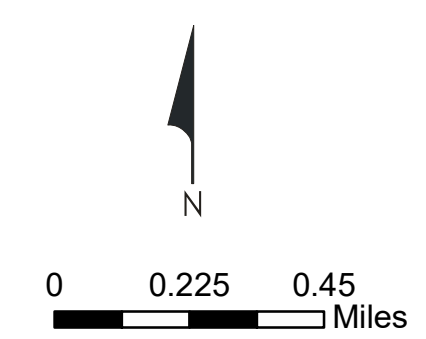
Legend

Slug Tests in UMCf DB Update

Phase

- Phase 2 RI
- Phase 3 RI
- Las Vegas Wash Bioremediation Pilot Study
- Seep Well Field Area Bioremediation Pilot Study

Well Name
K (ft/day)



RAMBOLL ENVIRON

Slug Tests in UMCf Wells, OU-2 and OU-3
Nevada Environmental Response Trust Site
Henderson, Nevada

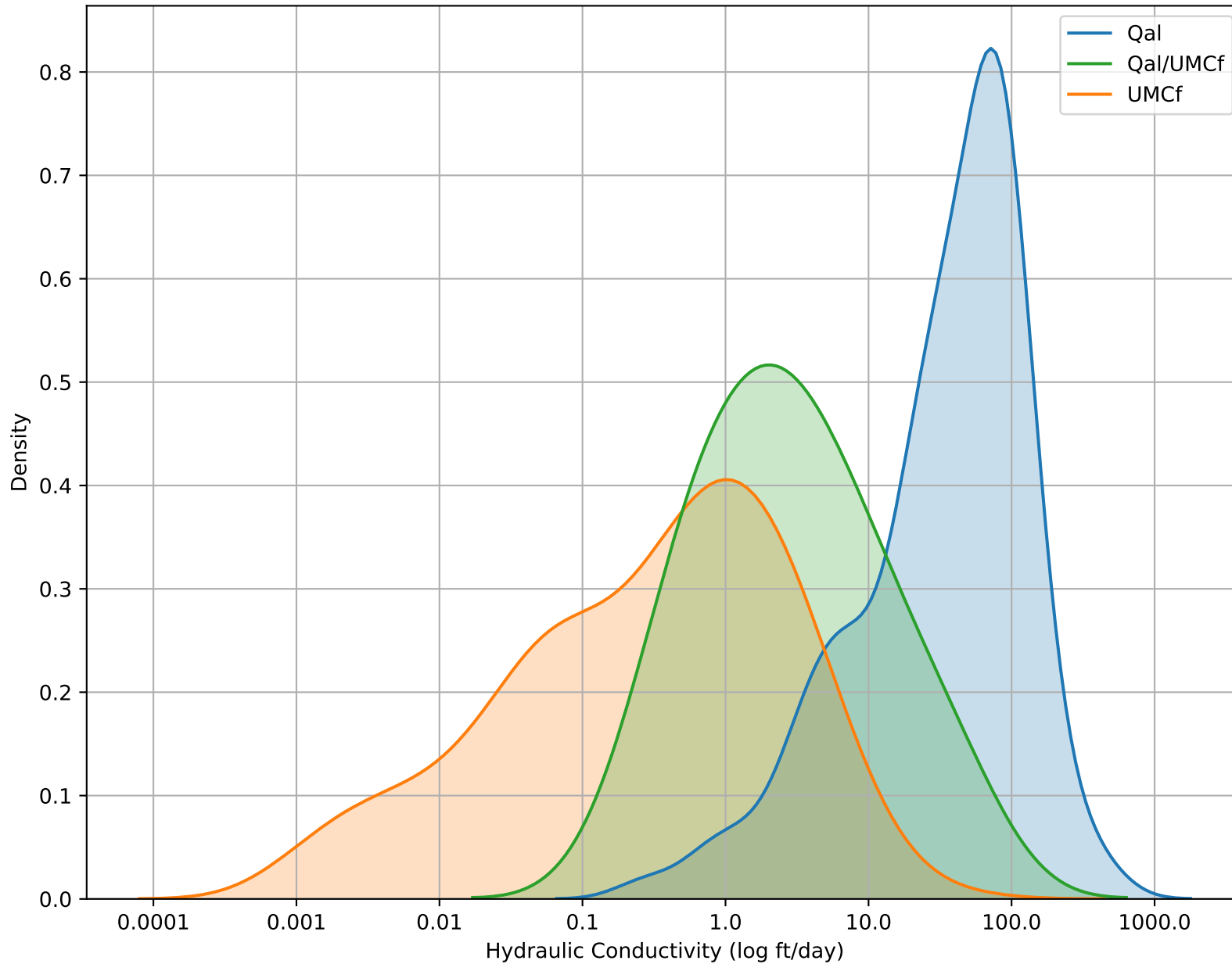
Date: 9/25/2019	Contract Number: 1690011200-050	Figure
Drafter: LAT	Approved:	Revised:

D-1e

OU-1
(See Figure D-1b)

OU-2

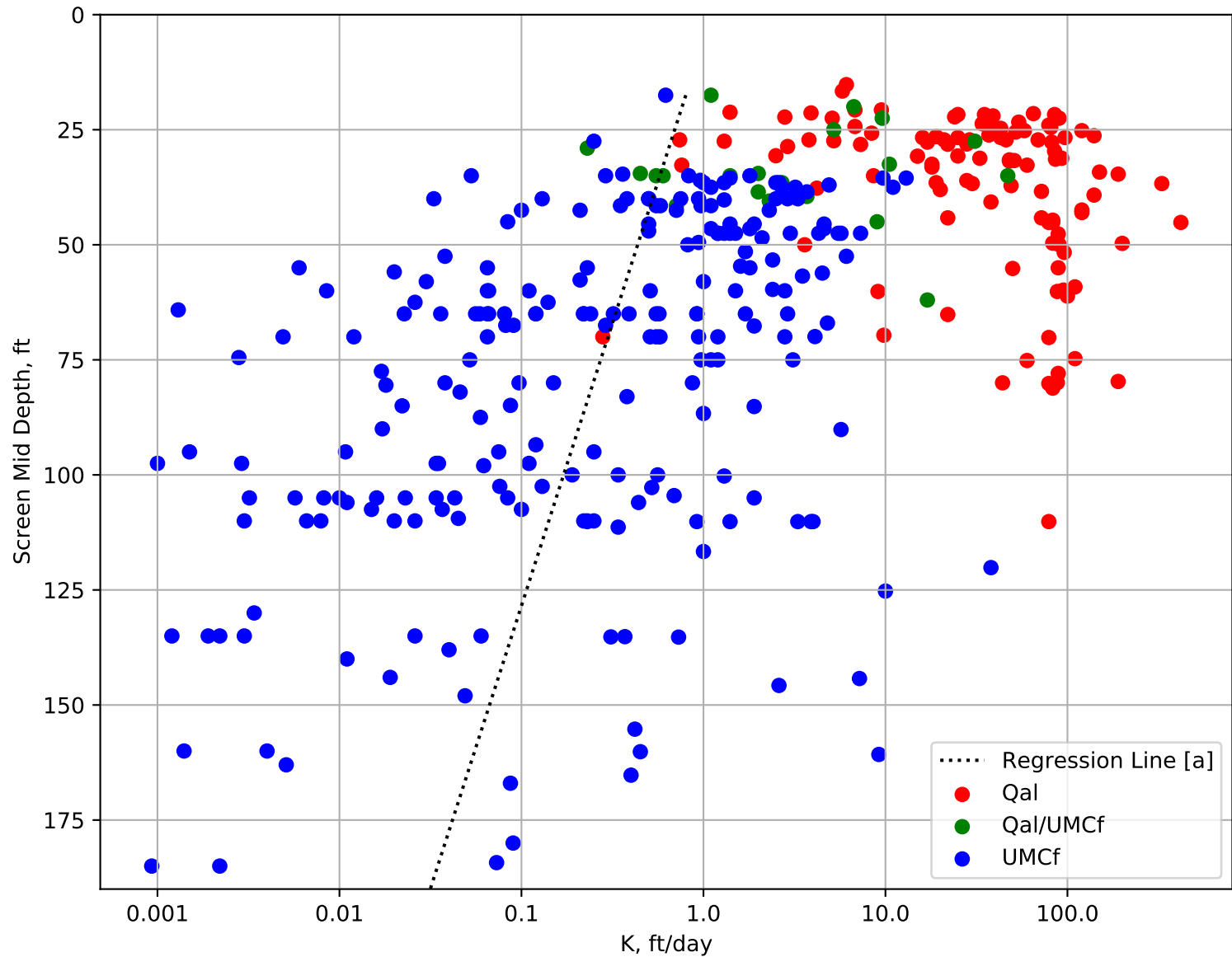
OU-3



Distribution of Hydraulic Conductivity by Screened Unit
Nevada Environmental Response Trust Site
Henderson, Nevada

Figure

D-2



Note: [a] Regression model fit to UMCf slug test results only.
 Slope of regression line (prediction of log K by screen interval midpoint) was statistically significant and negative with 95% confidence interval of -0.011 - -0.005



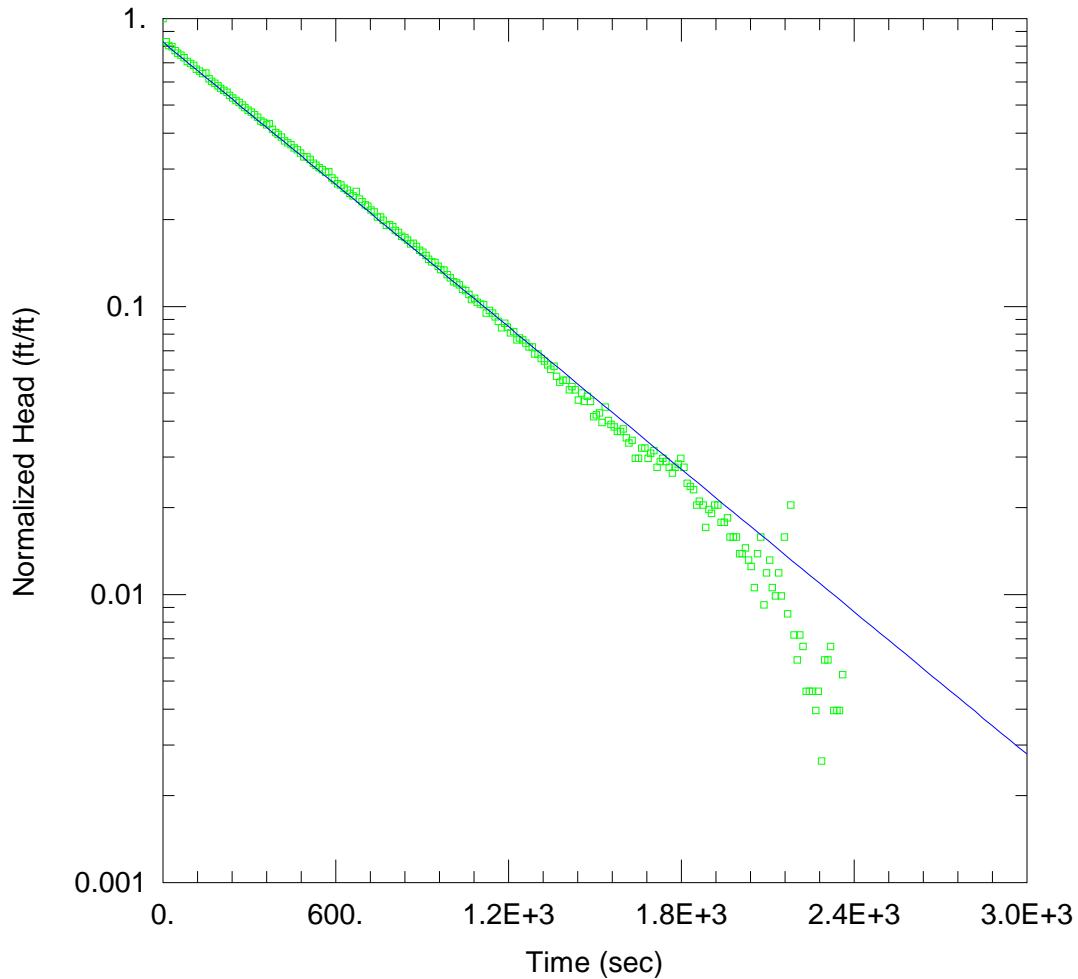
Hydraulic Conductivity vs Screen Depth for Slug Tests
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

D-3

ATTACHMENTS

**ATTACHMENT D-1
PLOTS FROM RI SLUG TESTS**



WELL TEST ANALYSIS

Data Set: H:\...M-216_FH1.aqt
 Date: 04/25/19

Time: 15:42:17

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: M-216
 Test Date: 10/7/2017

AQUIFER DATA

Saturated Thickness: 17.36 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (M-216)

Initial Displacement: 1.52 ft
 Total Well Penetration Depth: 17.36 ft
 Casing Radius: 0.167 ft

Static Water Column Height: 17.36 ft
 Screen Length: 17.36 ft
 Well Radius: 0.333 ft
 Gravel Pack Porosity: 0.3

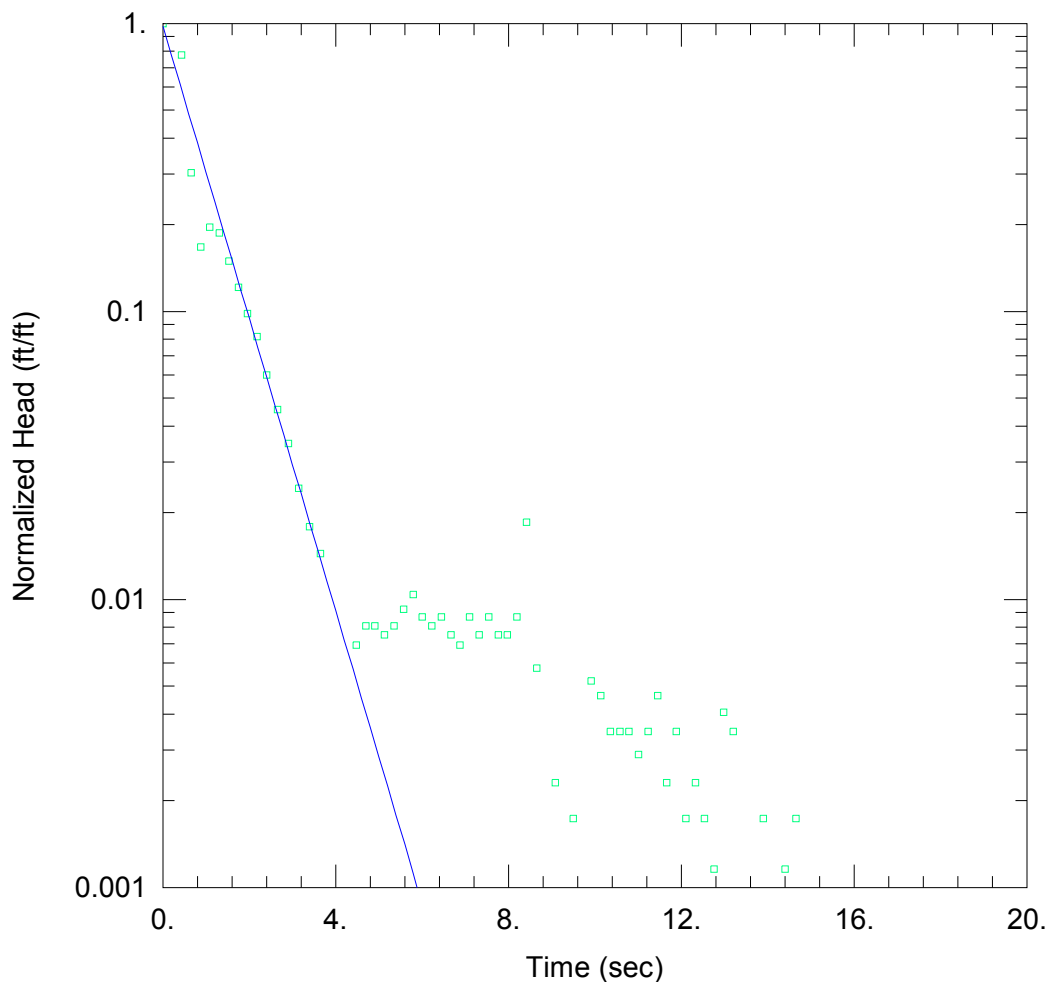
SOLUTION

Aquifer Model: Unconfined

Solution Method: Zlotnik-Goss-Duffield

K = 0.8276 ft/day

y_0 = 1.259 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC161_FH1.aqt
 Date: 06/29/18

Time: 13:37:45

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-161
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 38.28 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-161)

Initial Displacement: 1.73 ft
 Total Well Penetration Depth: 27.28 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 27.28 ft
 Screen Length: 25. ft
 Well Radius: 0.25 ft

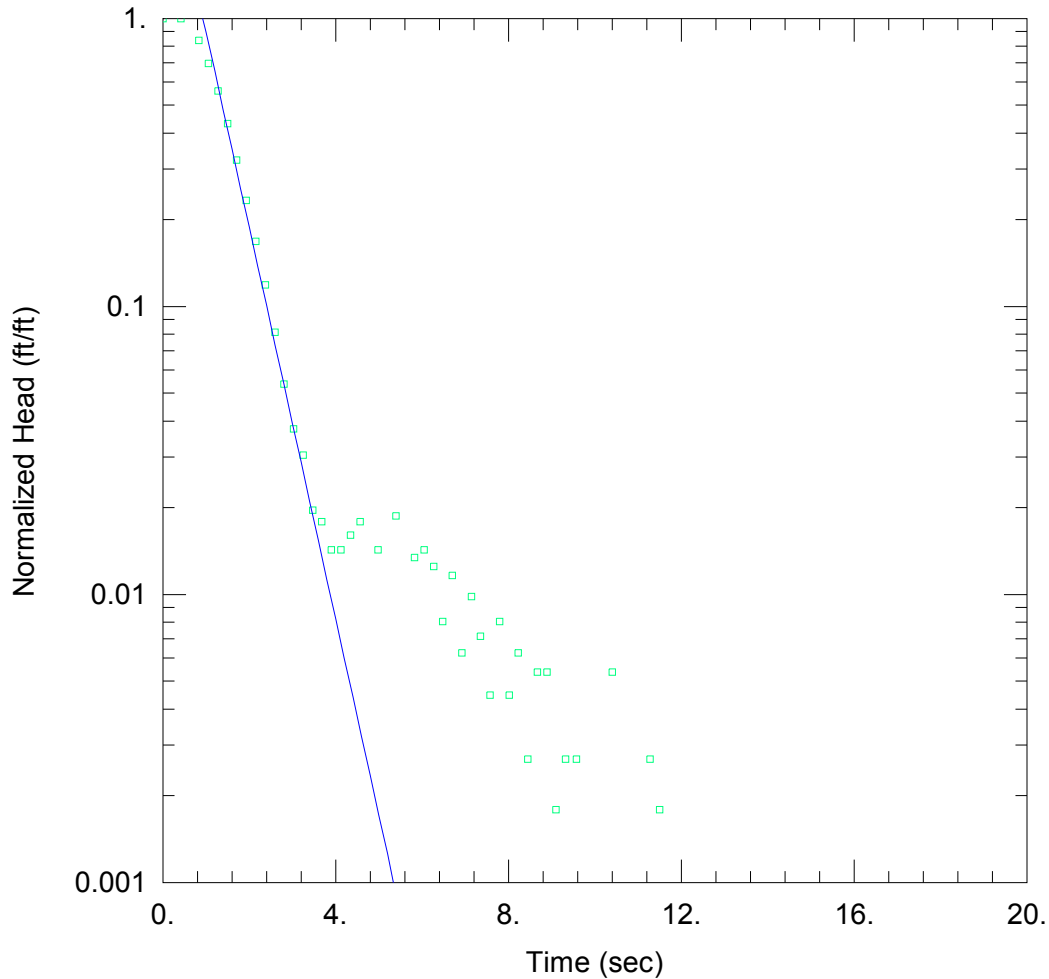
SOLUTION

Aquifer Model: Unconfined

Solution Method: Zlotnik-Goss-Duffield

K = 54.39 ft/day

y0 = 1.692 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC161_RH1.aqt
 Date: 06/29/18

Time: 13:42:47

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-161
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 38.28 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-161)

Initial Displacement: 1.12 ft
 Total Well Penetration Depth: 27.28 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 27.28 ft
 Screen Length: 25. ft
 Well Radius: 0.25 ft

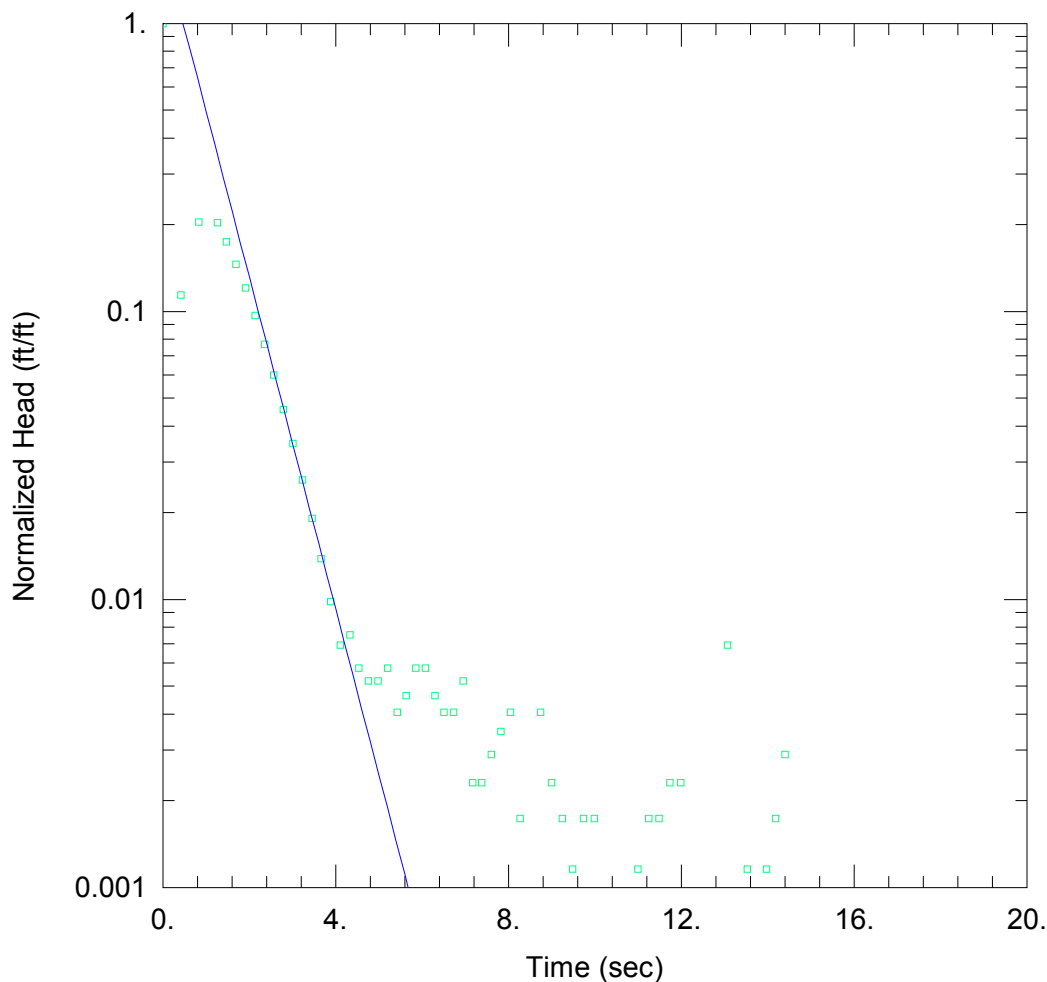
SOLUTION

Aquifer Model: Unconfined

Solution Method: Zlotnik-Goss-Duffield

K = 72.88 ft/day

y0 = 4.821 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC161_FH3.aqt
 Date: 06/29/18

Time: 13:40:49

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-161
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 38.28 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-161)

Initial Displacement: 1.73 ft
 Total Well Penetration Depth: 27.28 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 27.28 ft
 Screen Length: 25. ft
 Well Radius: 0.25 ft

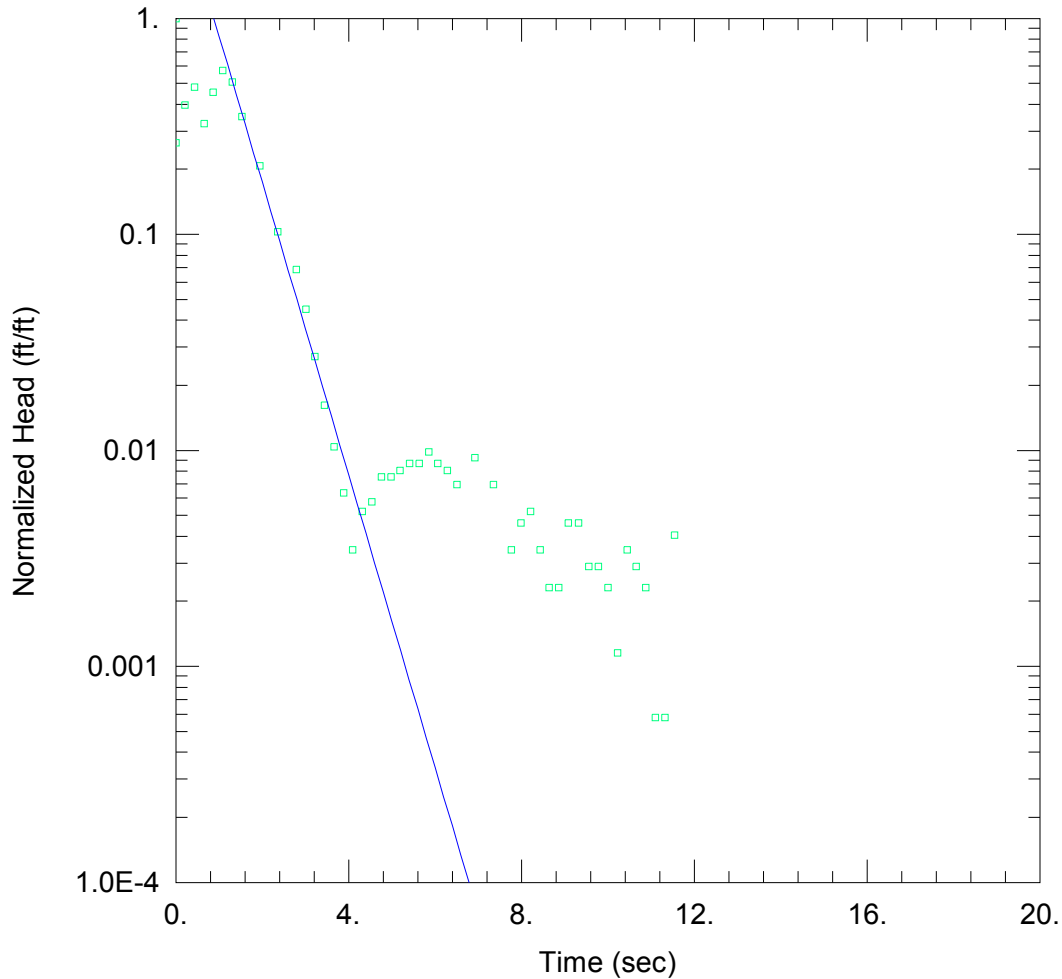
SOLUTION

Aquifer Model: Unconfined

Solution Method: Zlotnik-Goss-Duffield

K = 61.78 ft/day

y0 = 3.242 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC161_RH3.aqt
 Date: 06/29/18

Time: 13:44:56

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-161
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 38.28 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-161)

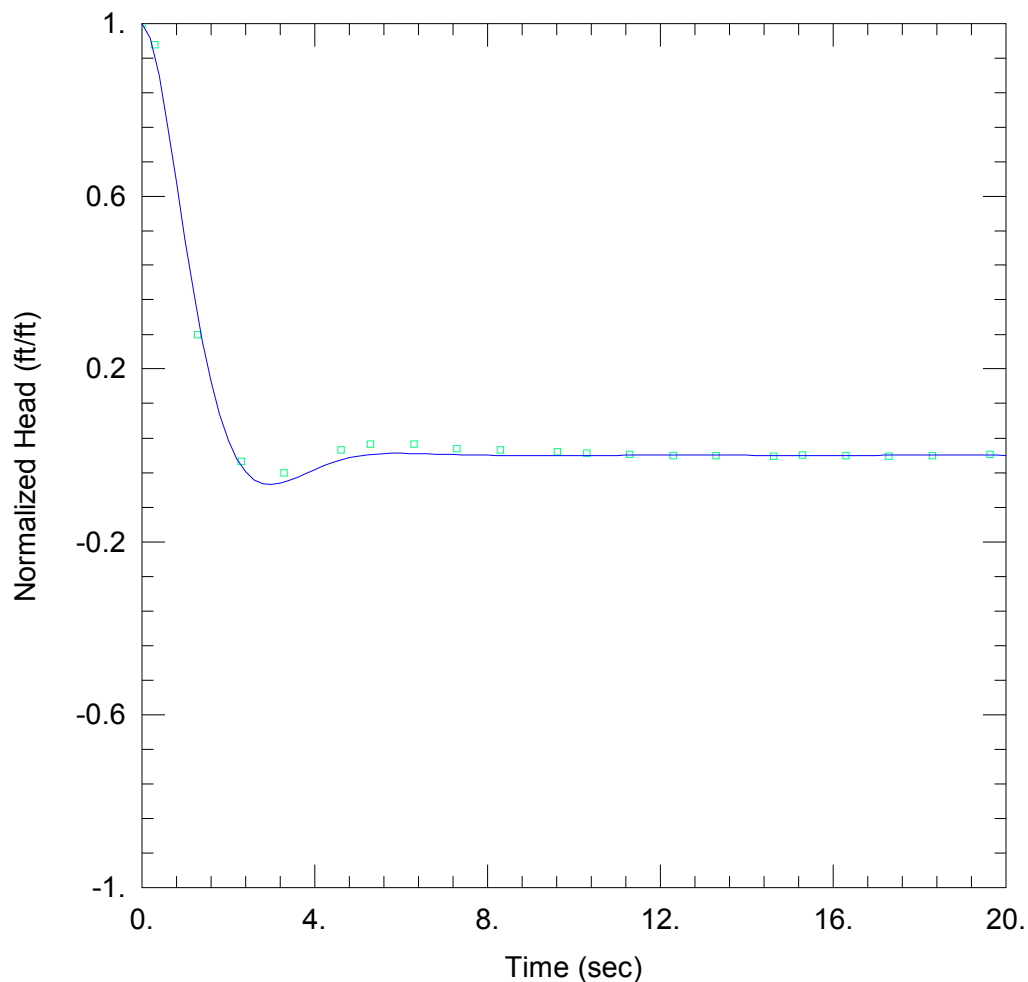
Initial Displacement: 1.73 ft
 Total Well Penetration Depth: 27.28 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 27.28 ft
 Screen Length: 25. ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
 K = 72.63 ft/day

Solution Method: Zlotnik-Goss-Duffield
 y0 = 6.838 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC162_RH1.aqt
 Date: 06/29/18

Time: 12:30:28

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-162
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 137.1 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-162)

Initial Displacement: 0.736 ft
 Total Well Penetration Depth: 37.01 ft
 Casing Radius: 0.08333 ft

Static Water Column Height: 37.01 ft
 Screen Length: 35. ft
 Well Radius: 0.25 ft

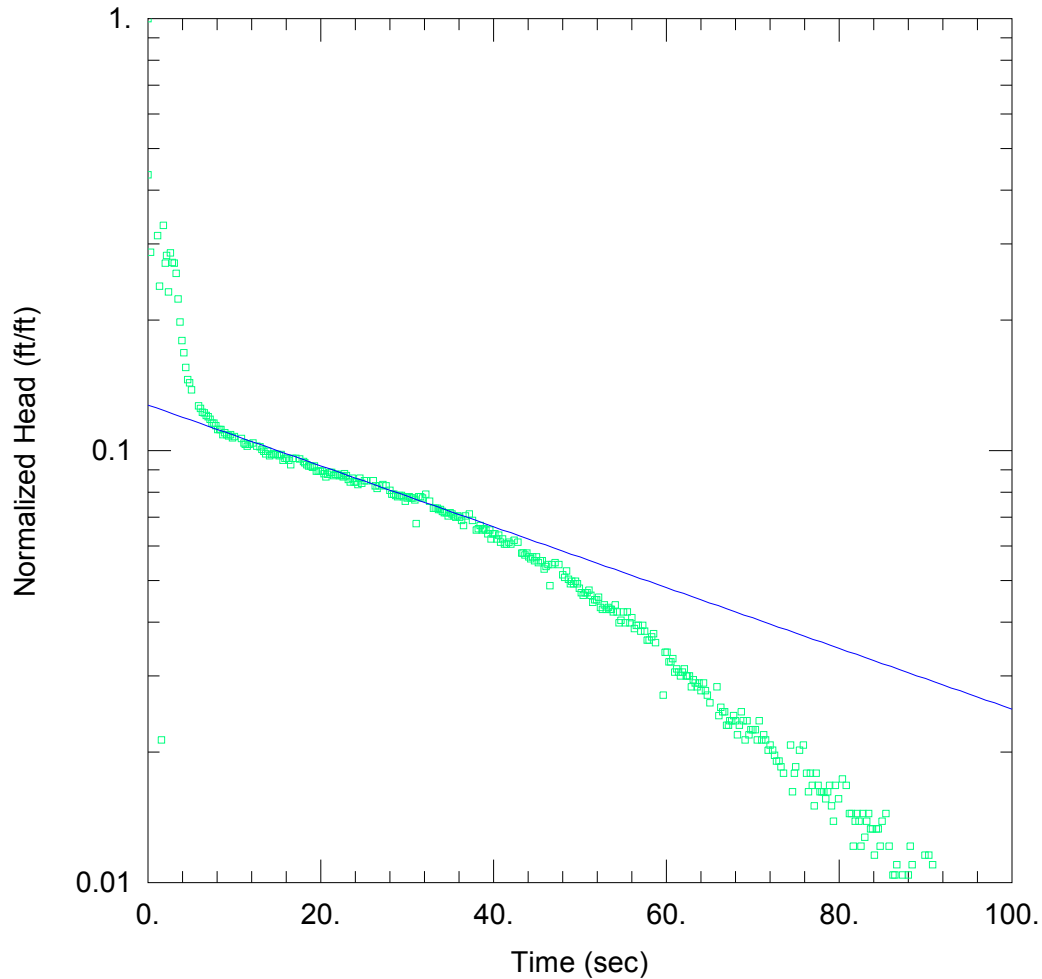
SOLUTION

Aquifer Model: Unconfined

Solution Method: Springer-Gelhar

K = 31.02 ft/day

Le = 16.61 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC164_RH1.aqt
 Date: 06/29/18

Time: 14:50:33

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-162
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 20.09 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-162)

Initial Displacement: 1.73 ft
 Total Well Penetration Depth: 8.55 ft
 Casing Radius: 0.08333 ft

Static Water Column Height: 8.55 ft
 Screen Length: 8.55 ft
 Well Radius: 0.25 ft
 Gravel Pack Porosity: 0.3

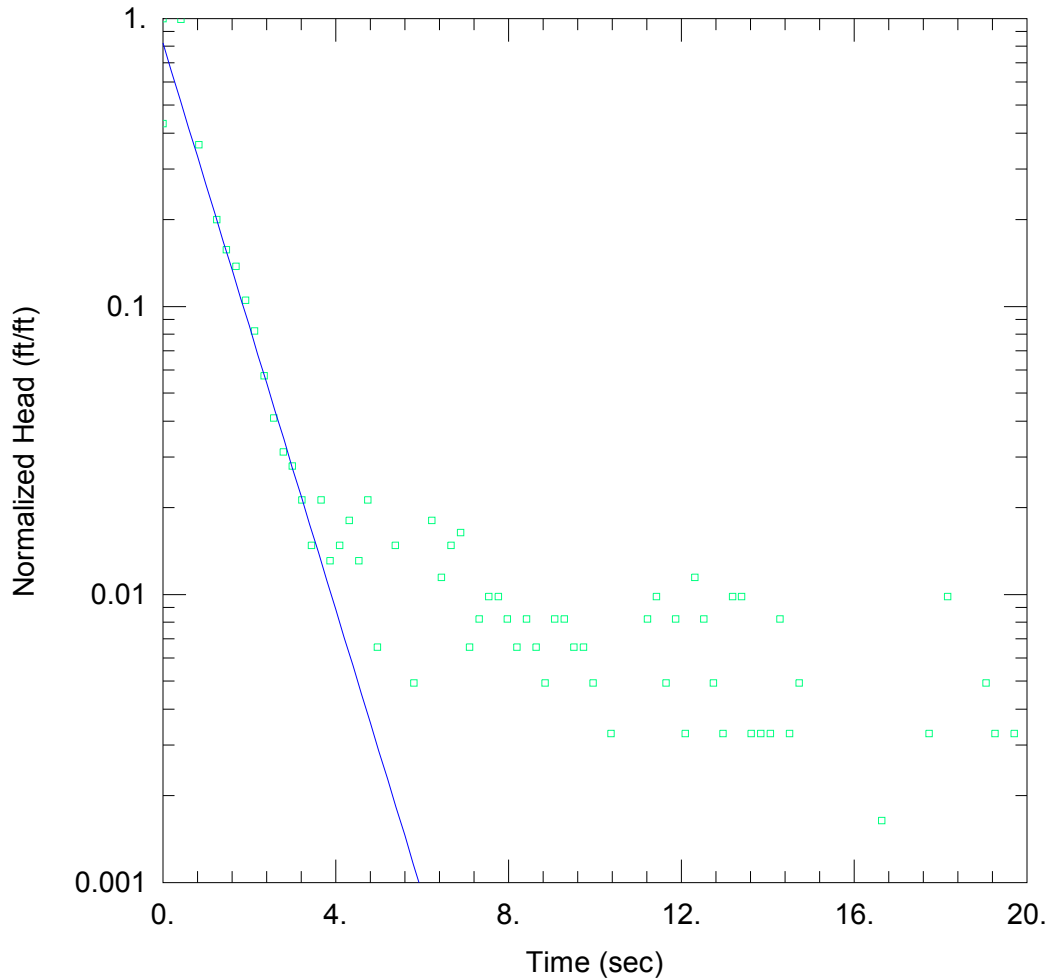
SOLUTION

Aquifer Model: Unconfined

Solution Method: Zlotnik-Goss-Duffield

K = 5.086 ft/day

y0 = 0.2203 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC165_FH1.aqt
 Date: 06/29/18

Time: 12:35:12

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-161
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 37.02 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-165)

Initial Displacement: 0.61 ft
 Total Well Penetration Depth: 25.83 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 25.83 ft
 Screen Length: 25. ft
 Well Radius: 0.25 ft

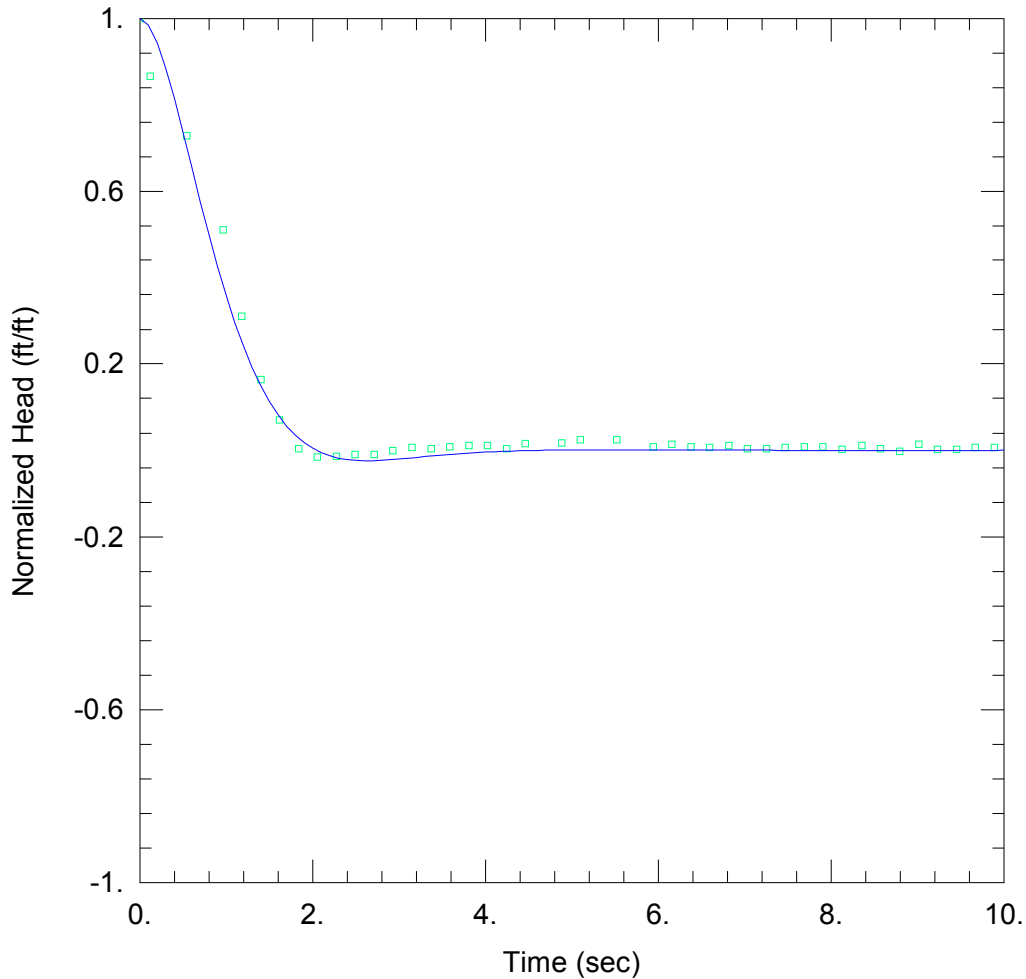
SOLUTION

Aquifer Model: Unconfined

Solution Method: Zlotnik-Goss-Duffield

K = 51.33 ft/day

y0 = 0.5002 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC165_RH1.aqt
 Date: 06/29/18

Time: 12:42:38

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-161
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 37.02 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-165)

Initial Displacement: 0.45 ft
 Total Well Penetration Depth: 25.83 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 25.83 ft
 Screen Length: 25. ft
 Well Radius: 0.25 ft

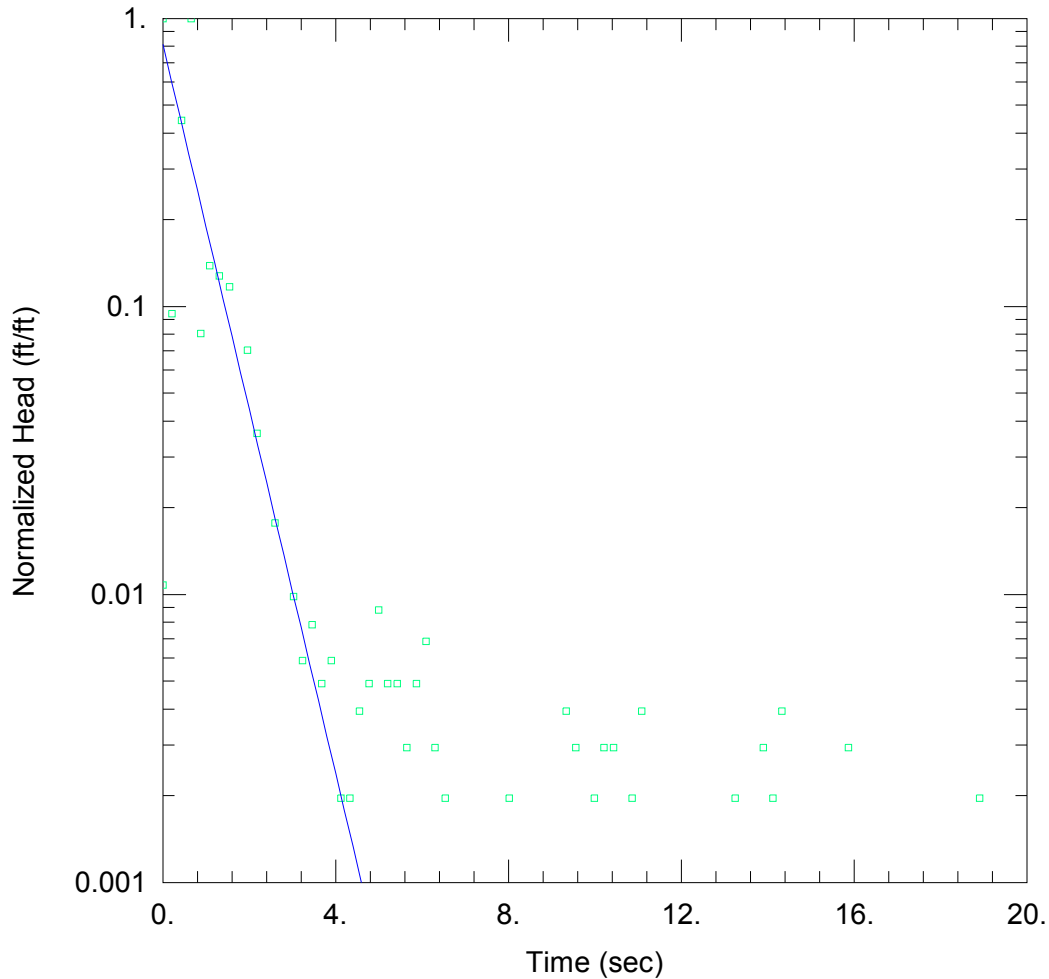
SOLUTION

Aquifer Model: Unconfined

Solution Method: Springer-Gelhar

K = 47.03 ft/day

Le = 9.41 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC165_FH2.aqt
 Date: 06/29/18

Time: 12:40:52

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-161
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 37.02 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-165)

Initial Displacement: 1.02 ft
 Total Well Penetration Depth: 25.83 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 25.83 ft
 Screen Length: 25. ft
 Well Radius: 0.25 ft

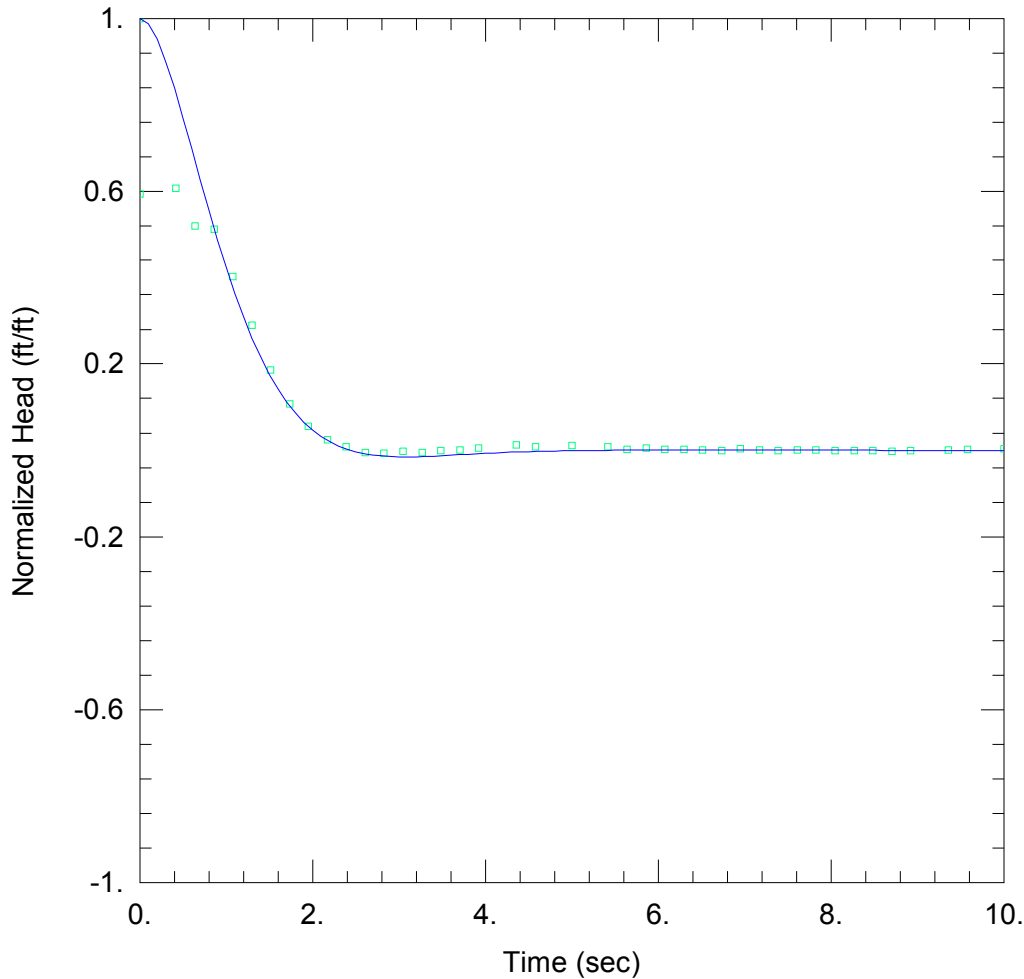
SOLUTION

Aquifer Model: Unconfined

Solution Method: Zlotnik-Goss-Duffield

K = 66.11 ft/day

y0 = 0.8282 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC165_RH2.aqt
 Date: 06/29/18

Time: 12:44:16

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-161
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 37.02 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-165)

Initial Displacement: 0.8 ft
 Total Well Penetration Depth: 25.83 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 25.83 ft
 Screen Length: 25. ft
 Well Radius: 0.25 ft

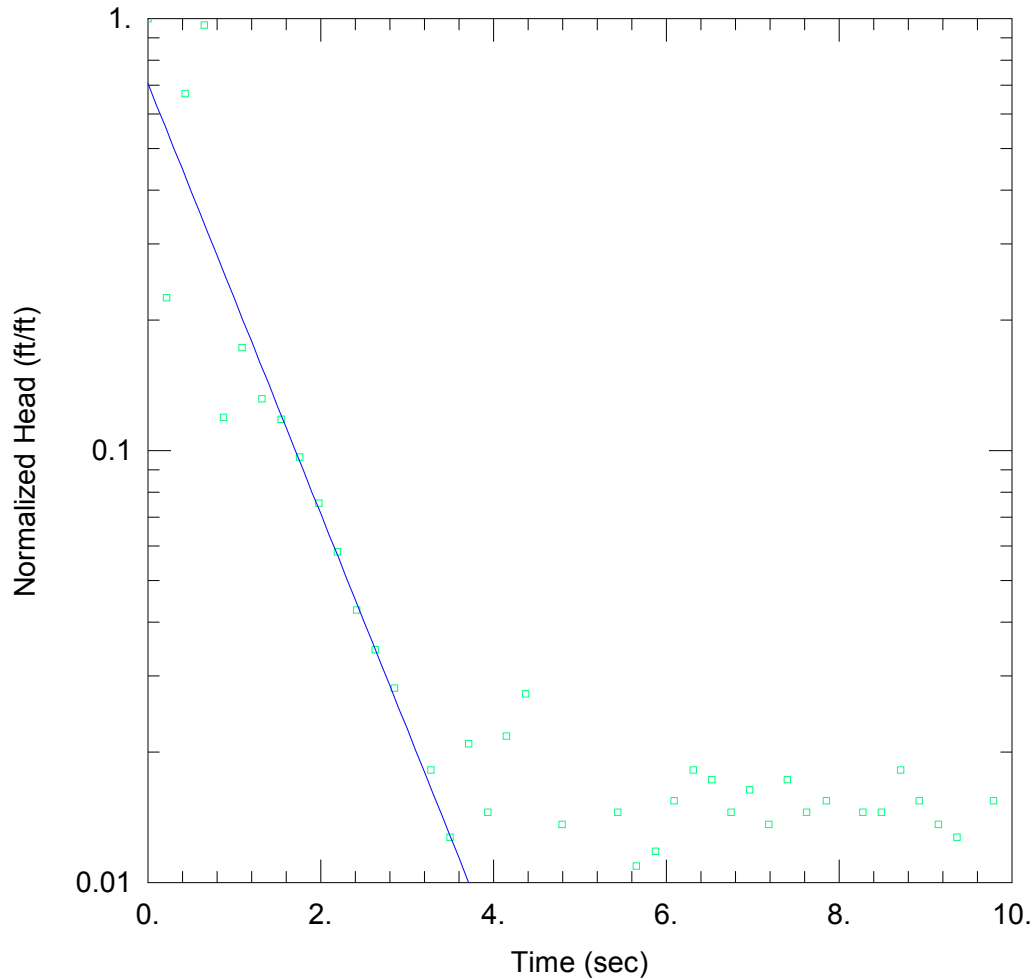
SOLUTION

Aquifer Model: Unconfined

Solution Method: Springer-Gelhar

K = 41.5 ft/day

Le = 11.03 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC165_FH3.aqt
 Date: 06/29/18

Time: 12:40:20

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-161
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 37.02 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-165)

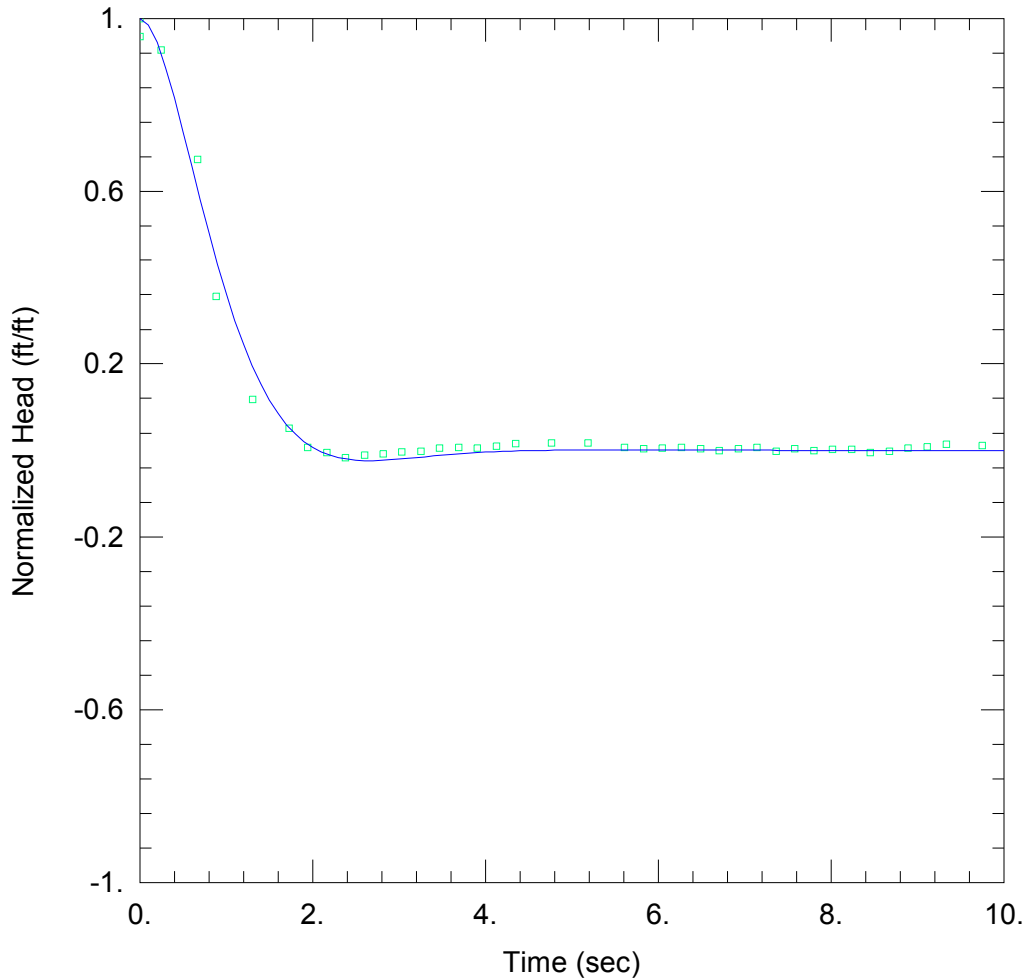
Initial Displacement: 1.1 ft
 Total Well Penetration Depth: 25.83 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 25.83 ft
 Screen Length: 25. ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
 K = 52.02 ft/day

Solution Method: Zlotnik-Goss-Duffield
 y0 = 0.7783 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC165_RH3.aqt
 Date: 06/29/18

Time: 12:44:59

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-161
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 37.02 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-165)

Initial Displacement: 0.6 ft
 Total Well Penetration Depth: 25.83 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 25.83 ft
 Screen Length: 25. ft
 Well Radius: 0.25 ft

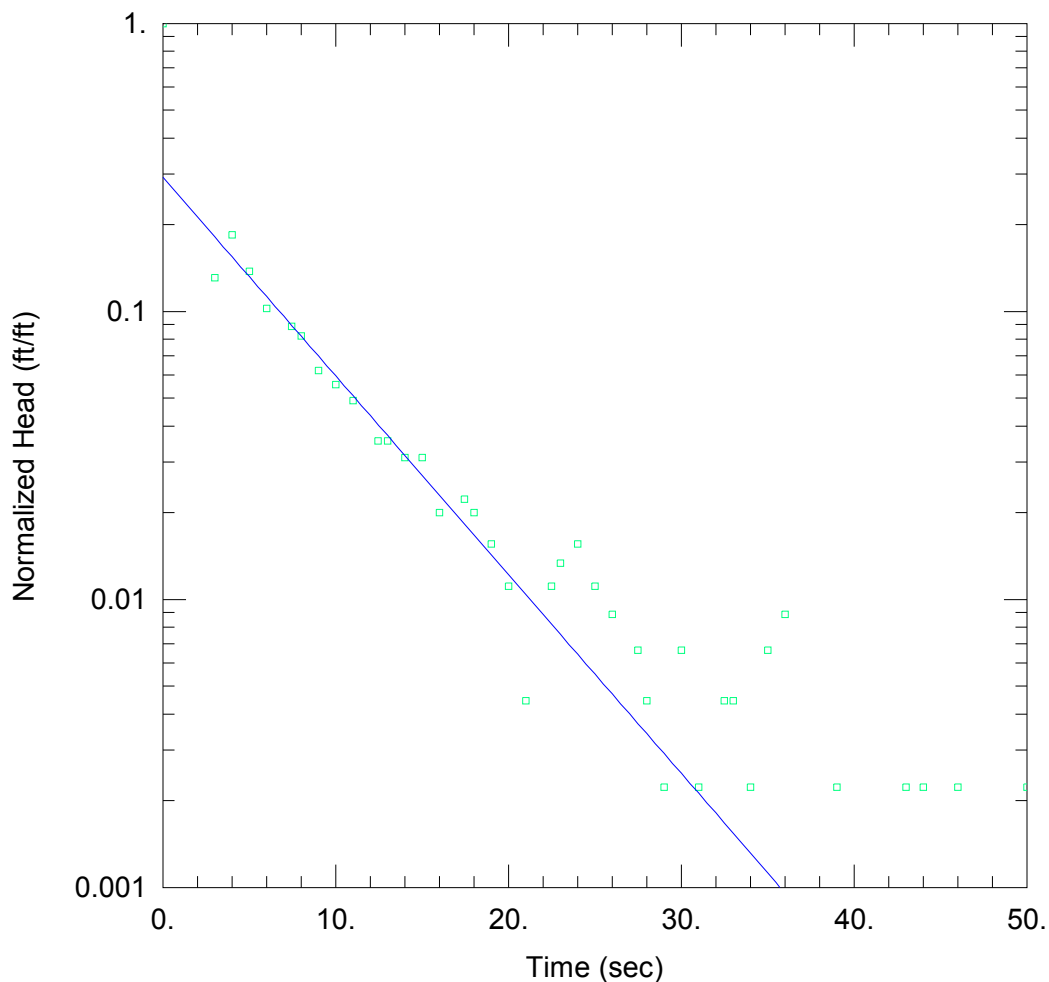
SOLUTION

Aquifer Model: Unconfined

Solution Method: Springer-Gelhar

K = 46.7 ft/day

Le = 9.522 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC166_FH1.aqt
 Date: 06/29/18

Time: 15:03:56

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-161
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 34.6 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-166)

Initial Displacement: 0.45 ft
 Total Well Penetration Depth: 19.72 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 19.72 ft
 Screen Length: 19.72 ft
 Well Radius: 0.25 ft
 Gravel Pack Porosity: 0.3

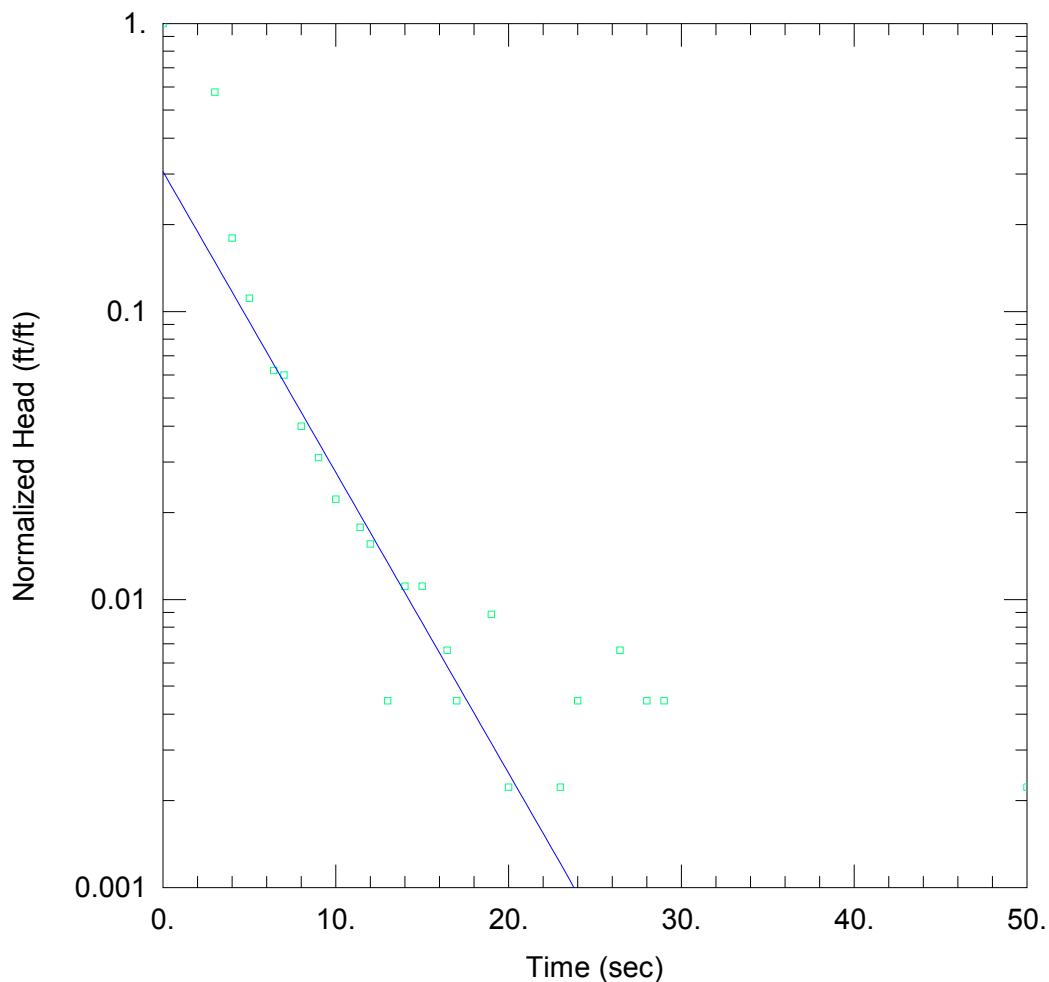
SOLUTION

Aquifer Model: Unconfined

Solution Method: Zlotnik-Goss-Duffield

K = 28.21 ft/day

y0 = 0.1316 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC166_RH1.aqt
 Date: 06/29/18

Time: 15:06:32

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-161
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 34.6 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-166)

Initial Displacement: 0.45 ft
 Total Well Penetration Depth: 19.72 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 19.72 ft
 Screen Length: 19.72 ft
 Well Radius: 0.25 ft
 Gravel Pack Porosity: 0.3

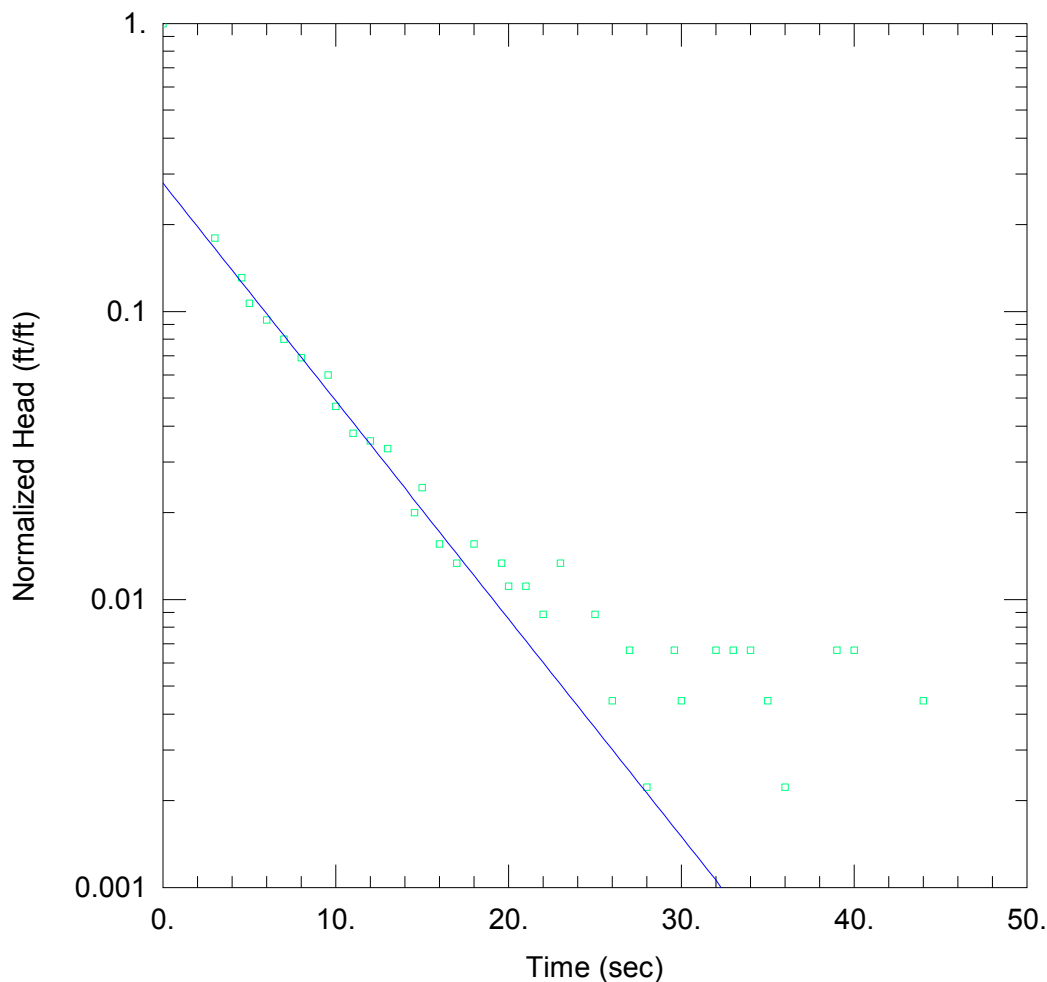
SOLUTION

Aquifer Model: Unconfined

Solution Method: Zlotnik-Goss-Duffield

K = 42.69 ft/day

y0 = 0.1378 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC166_FH2.aqt
 Date: 06/29/18

Time: 15:04:34

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-161
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 34.6 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-166)

Initial Displacement: 0.45 ft
 Total Well Penetration Depth: 19.72 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 19.72 ft
 Screen Length: 19.72 ft
 Well Radius: 0.25 ft
 Gravel Pack Porosity: 0.3

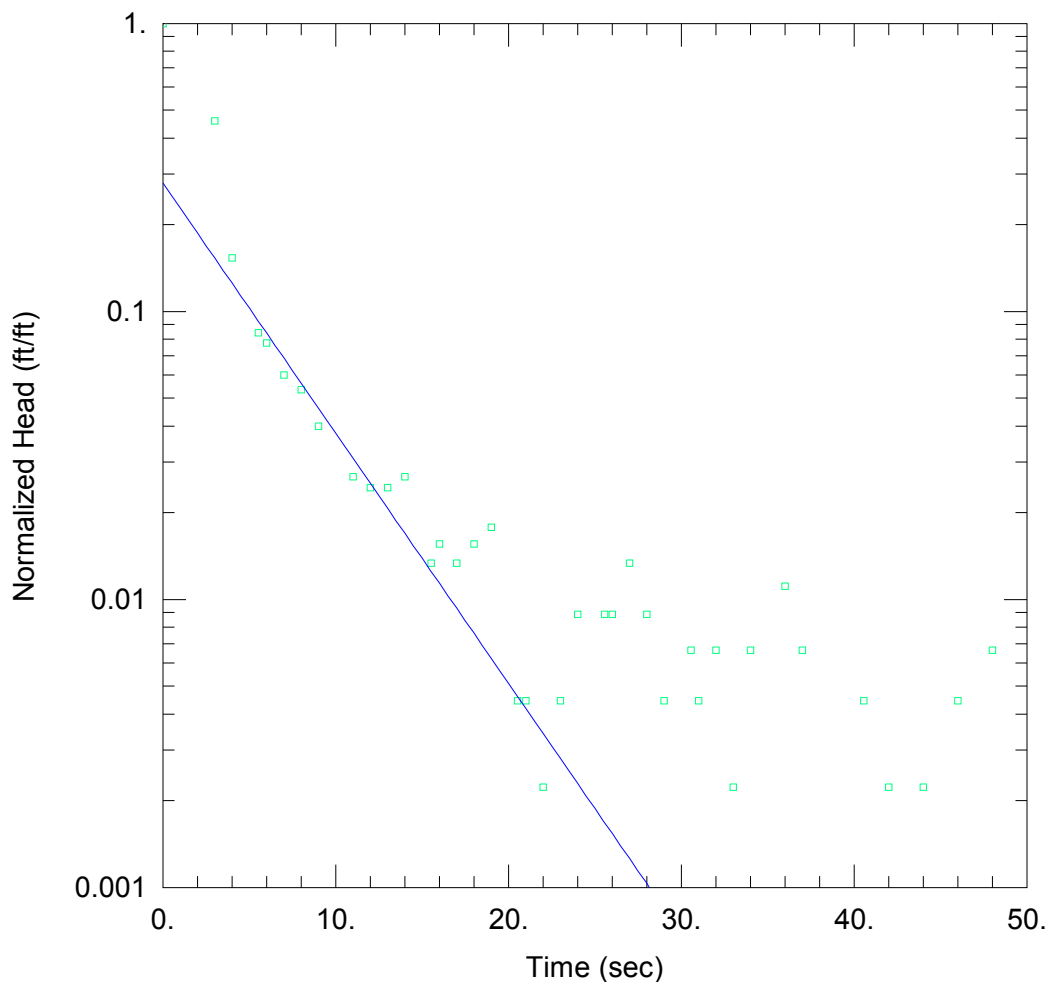
SOLUTION

Aquifer Model: Unconfined

Solution Method: Zlotnik-Goss-Duffield

K = 30.93 ft/day

y0 = 0.1257 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC166_RH2.aqt
 Date: 06/29/18

Time: 15:04:58

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-161
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 34.6 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-166)

Initial Displacement: 0.45 ft
 Total Well Penetration Depth: 19.72 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 19.72 ft
 Screen Length: 19.72 ft
 Well Radius: 0.25 ft
 Gravel Pack Porosity: 0.3

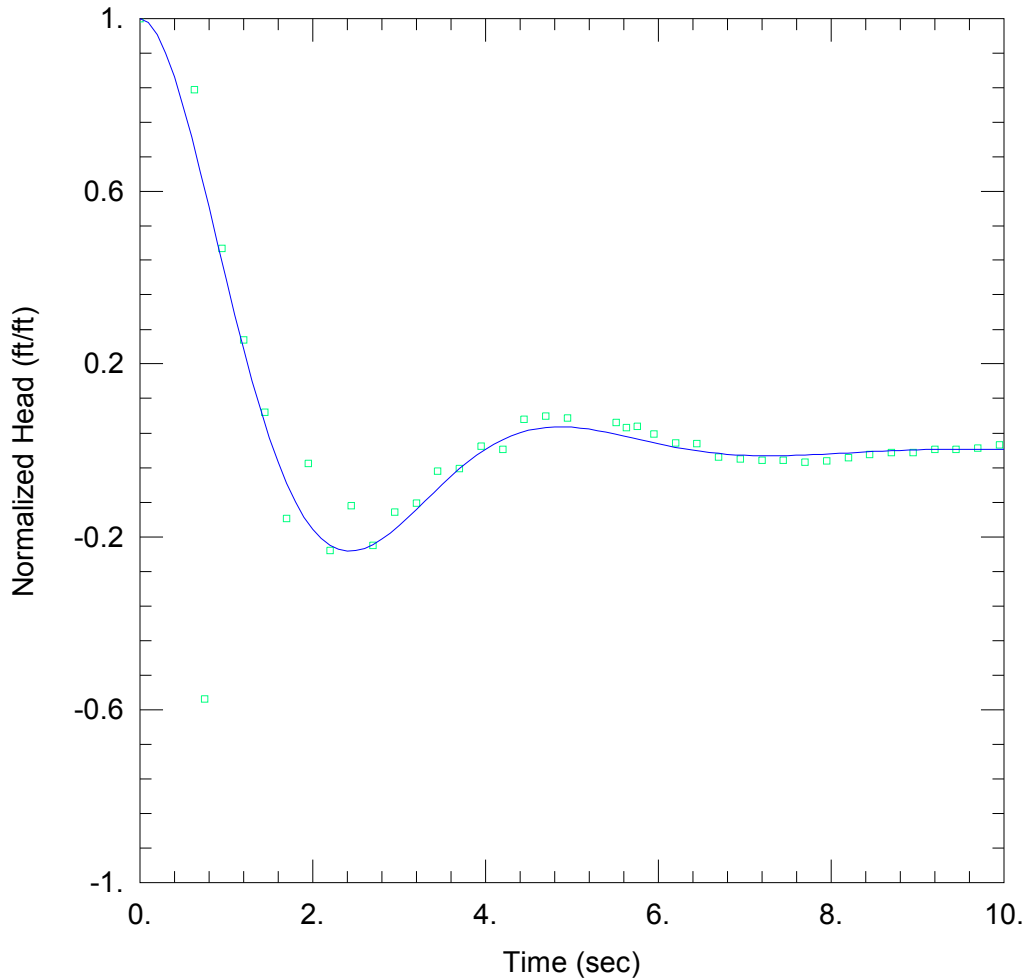
SOLUTION

Aquifer Model: Unconfined

Solution Method: Zlotnik-Goss-Duffield

K = 35.51 ft/day

y0 = 0.1257 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC190_FH1.aqt
 Date: 06/29/18

Time: 13:15:08

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-161
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 33.76 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-190)

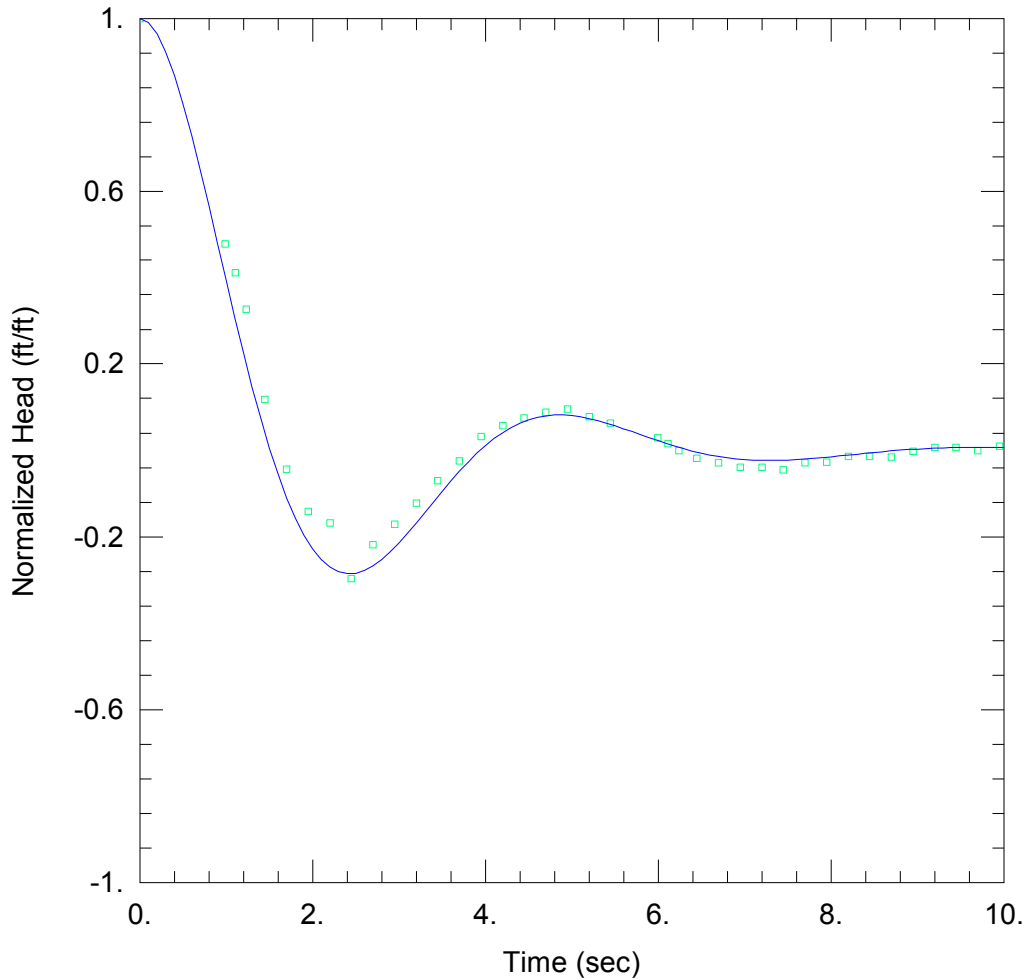
Initial Displacement: 0.4 ft
 Total Well Penetration Depth: 22.76 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 22.76 ft
 Screen Length: 20. ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
 K = 78.71 ft/day

Solution Method: Springer-Gelhar
 Le = 15.85 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC190_FH2.aqt
 Date: 06/29/18

Time: 13:17:54

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-161
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 33.76 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-190)

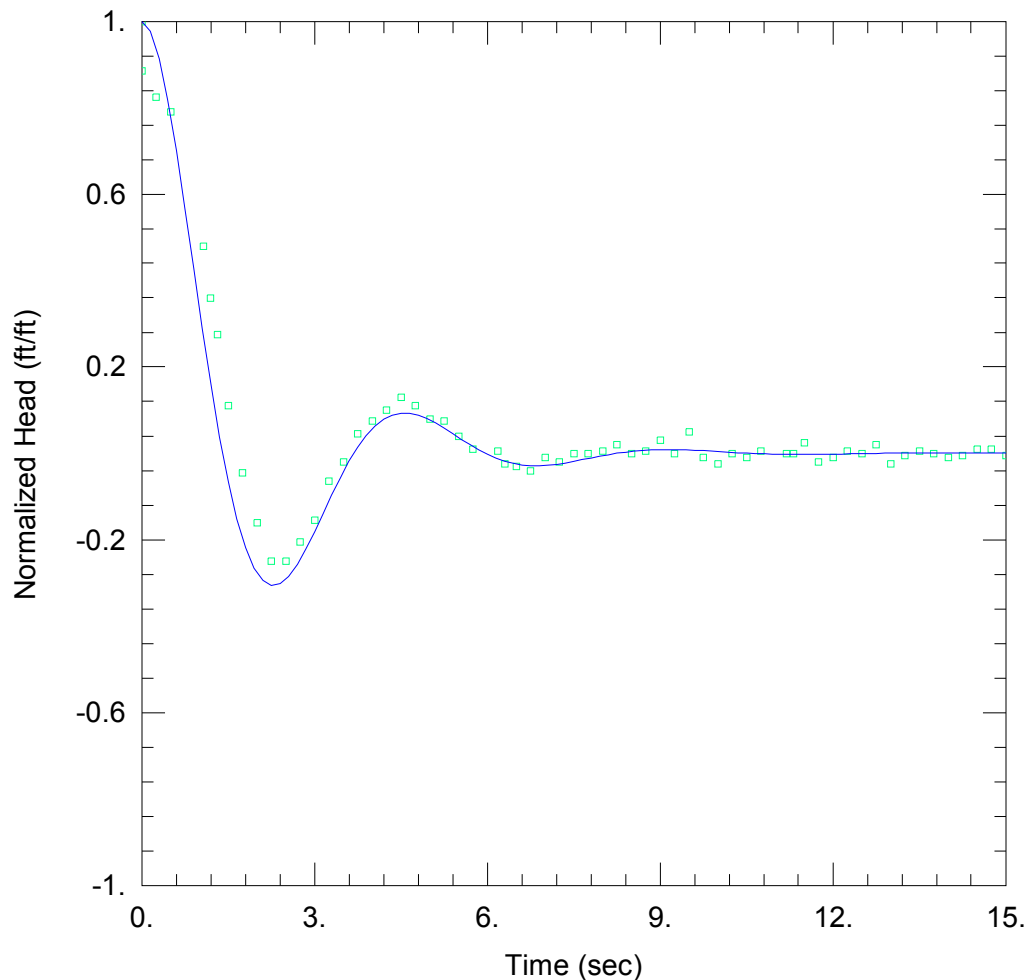
Initial Displacement: 0.44 ft
 Total Well Penetration Depth: 22.76 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 22.76 ft
 Screen Length: 20. ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
 K = 87.33 ft/day

Solution Method: Springer-Gelhar
 Le = 16.6 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC190_RH2.aqt
 Date: 06/29/18

Time: 13:24:12

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-161
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 33.76 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-190)

Initial Displacement: 0.2 ft
 Total Well Penetration Depth: 22.76 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 22.76 ft
 Screen Length: 20. ft
 Well Radius: 0.25 ft

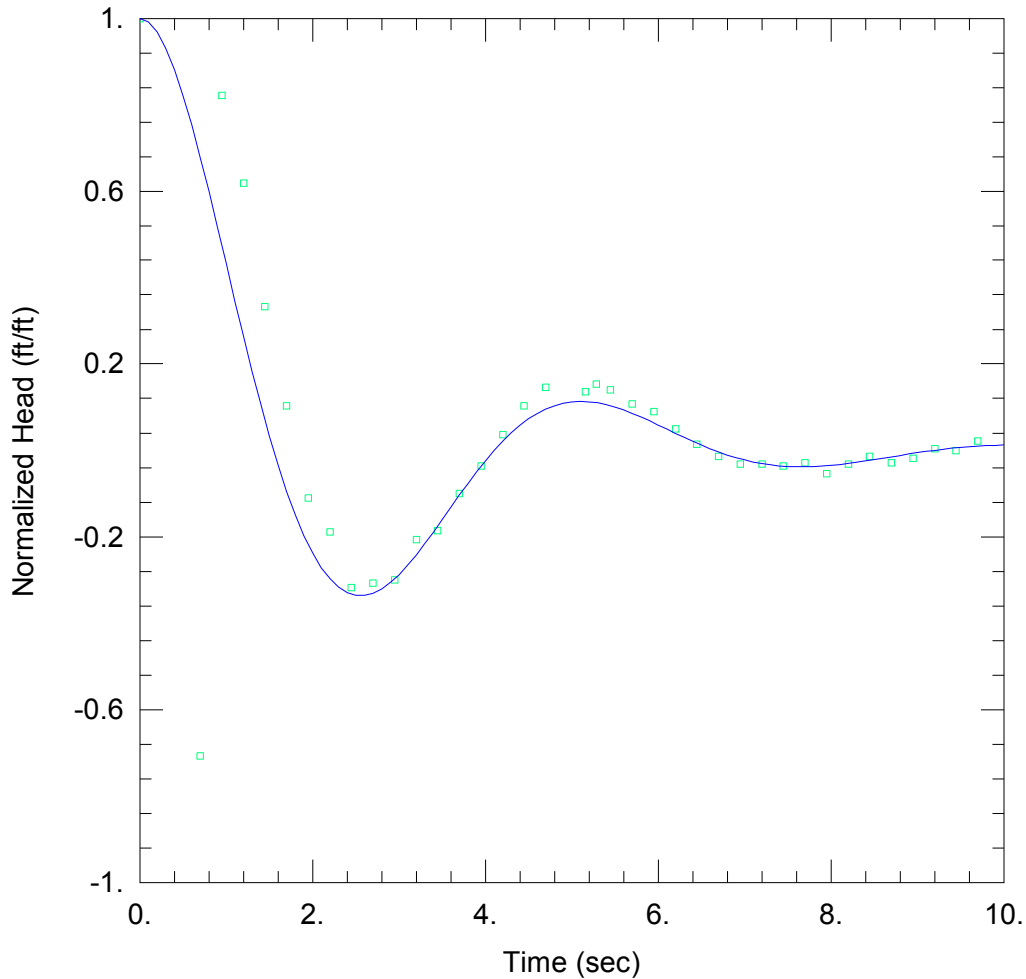
SOLUTION

Aquifer Model: Unconfined

Solution Method: Springer-Gelhar

K = 96.9 ft/day

Le = 14.86 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC190_FH3.aqt
 Date: 06/29/18

Time: 13:19:22

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-161
 Test Date: 8/23/17

AQUIFER DATA

Saturated Thickness: 33.76 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-190)

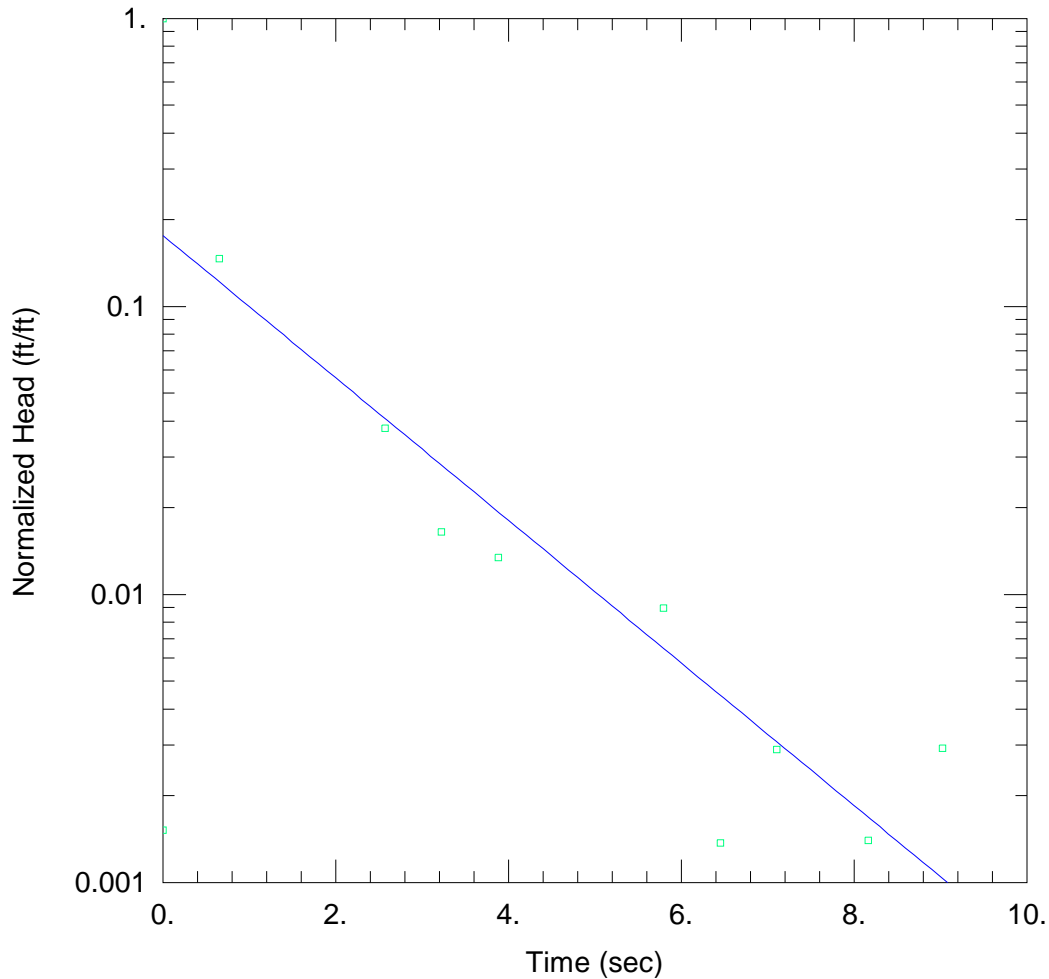
Initial Displacement: 0.28 ft
 Total Well Penetration Depth: 22.76 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 22.76 ft
 Screen Length: 20. ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
 K = 92.31 ft/day

Solution Method: Springer-Gelhar
 Le = 18.97 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC191_FH1.aqt
 Date: 12/05/18

Time: 11:19:45

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-191
 Test Date: 10/11/17

AQUIFER DATA

Saturated Thickness: 22 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-191)

Initial Displacement: 0.66 ft
 Total Well Penetration Depth: 14.68 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 14.68 ft
 Screen Length: 14.68 ft
 Well Radius: 0.25 ft
 Gravel Pack Porosity: 0.3

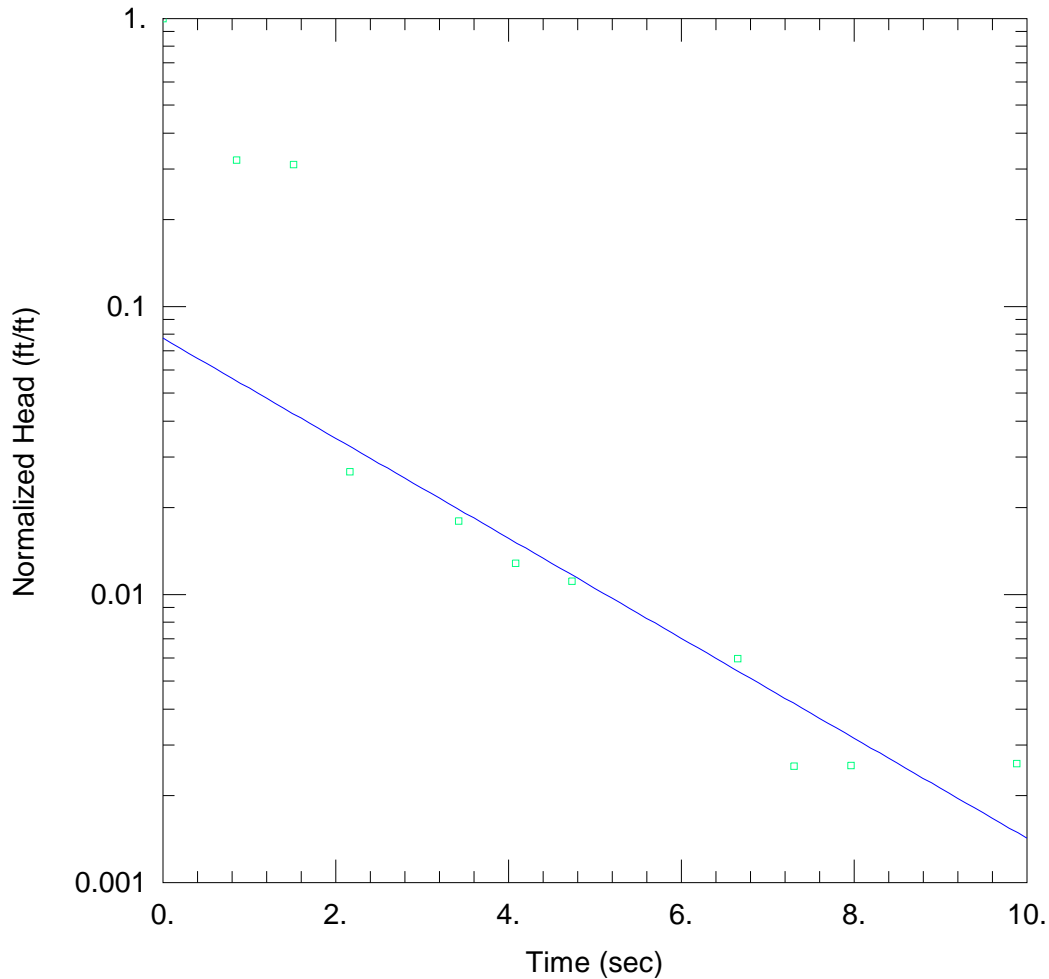
SOLUTION

Aquifer Model: Unconfined

Solution Method: Zlotnik-Goss-Duffield

K = 125.4 ft/day

y0 = 0.1164 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC191_FH2.aqt
 Date: 12/05/18

Time: 11:18:59

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-191
 Test Date: 10/11/17

AQUIFER DATA

Saturated Thickness: 22 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-191)

Initial Displacement: 0.58 ft
 Total Well Penetration Depth: 14.68 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 14.68 ft
 Screen Length: 14.68 ft
 Well Radius: 0.25 ft
 Gravel Pack Porosity: 0.3

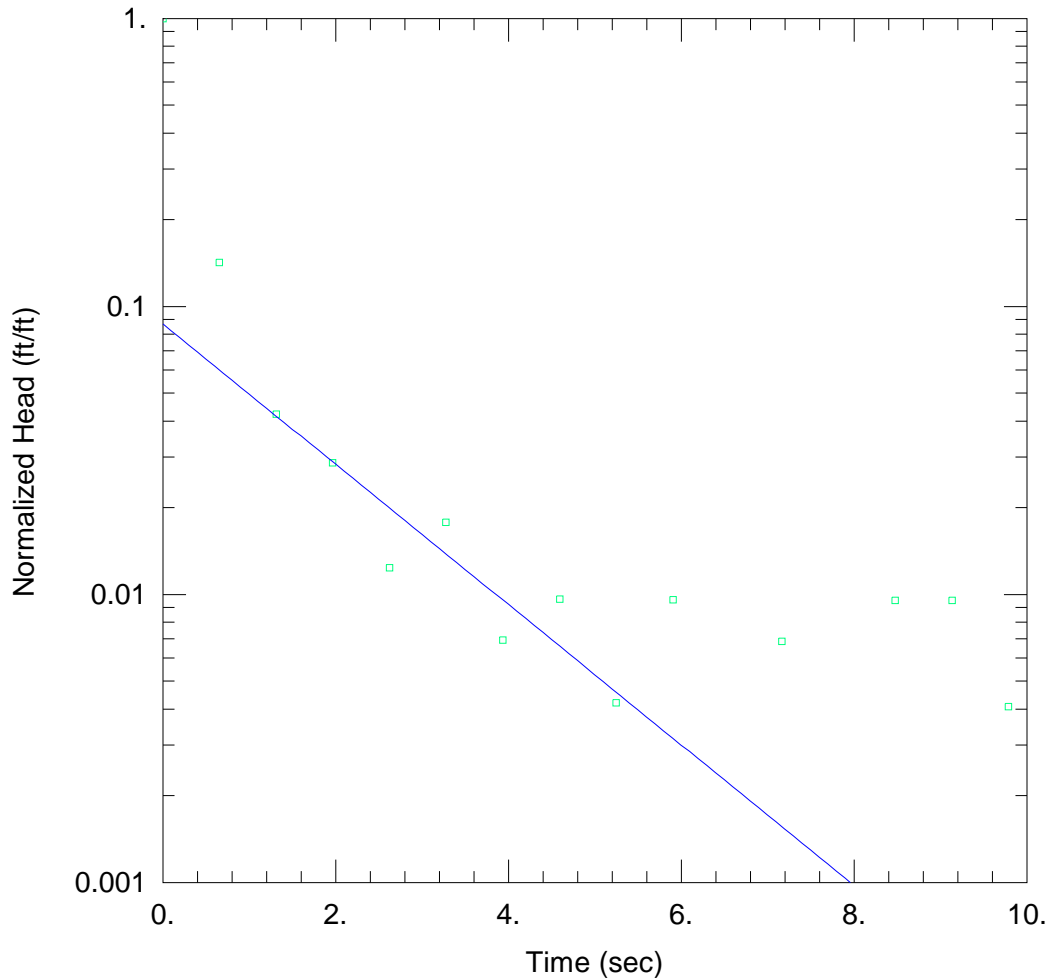
SOLUTION

Aquifer Model: Unconfined

Solution Method: Zlotnik-Goss-Duffield

K = 87.98 ft/day

y0 = 0.04493 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC191_RH2.aqt
 Date: 12/05/18

Time: 11:18:13

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-191
 Test Date: 10/11/17

AQUIFER DATA

Saturated Thickness: 22 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-191)

Initial Displacement: 0.37 ft
 Total Well Penetration Depth: 14.68 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 14.68 ft
 Screen Length: 14.68 ft
 Well Radius: 0.25 ft
 Gravel Pack Porosity: 0.3

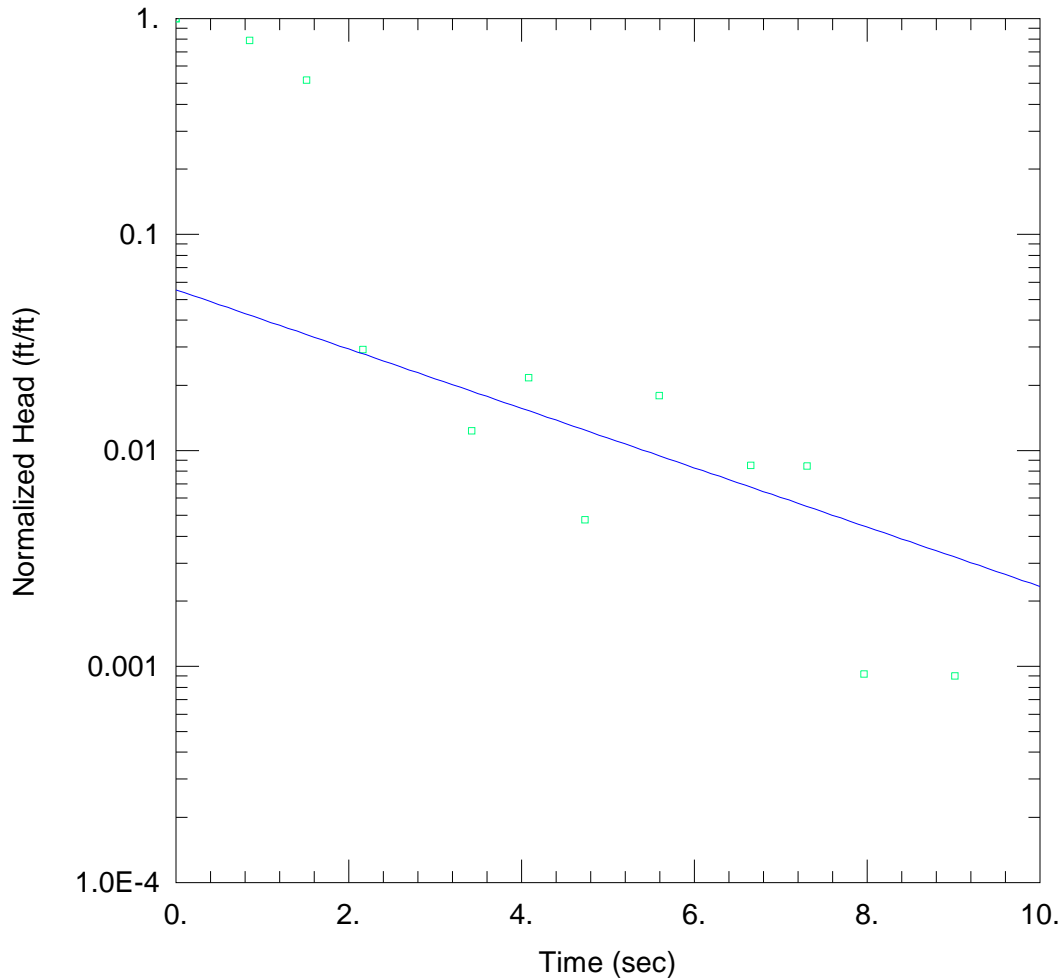
SOLUTION

Aquifer Model: Unconfined

Solution Method: Zlotnik-Goss-Duffield

K = 123.5 ft/day

y0 = 0.03212 ft



WELL TEST ANALYSIS

Data Set: H:\...\PC191_RH3.aqt
 Date: 12/05/18

Time: 11:28:50

PROJECT INFORMATION

Company: Ramboll Environ
 Client: NERT
 Test Well: PC-191
 Test Date: 10/11/17

AQUIFER DATA

Saturated Thickness: 22 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PC-191)

Initial Displacement: 0.53 ft
 Total Well Penetration Depth: 14.68 ft
 Casing Radius: 0.0833 ft

Static Water Column Height: 14.68 ft
 Screen Length: 14.68 ft
 Well Radius: 0.25 ft
 Gravel Pack Porosity: 0.3

SOLUTION

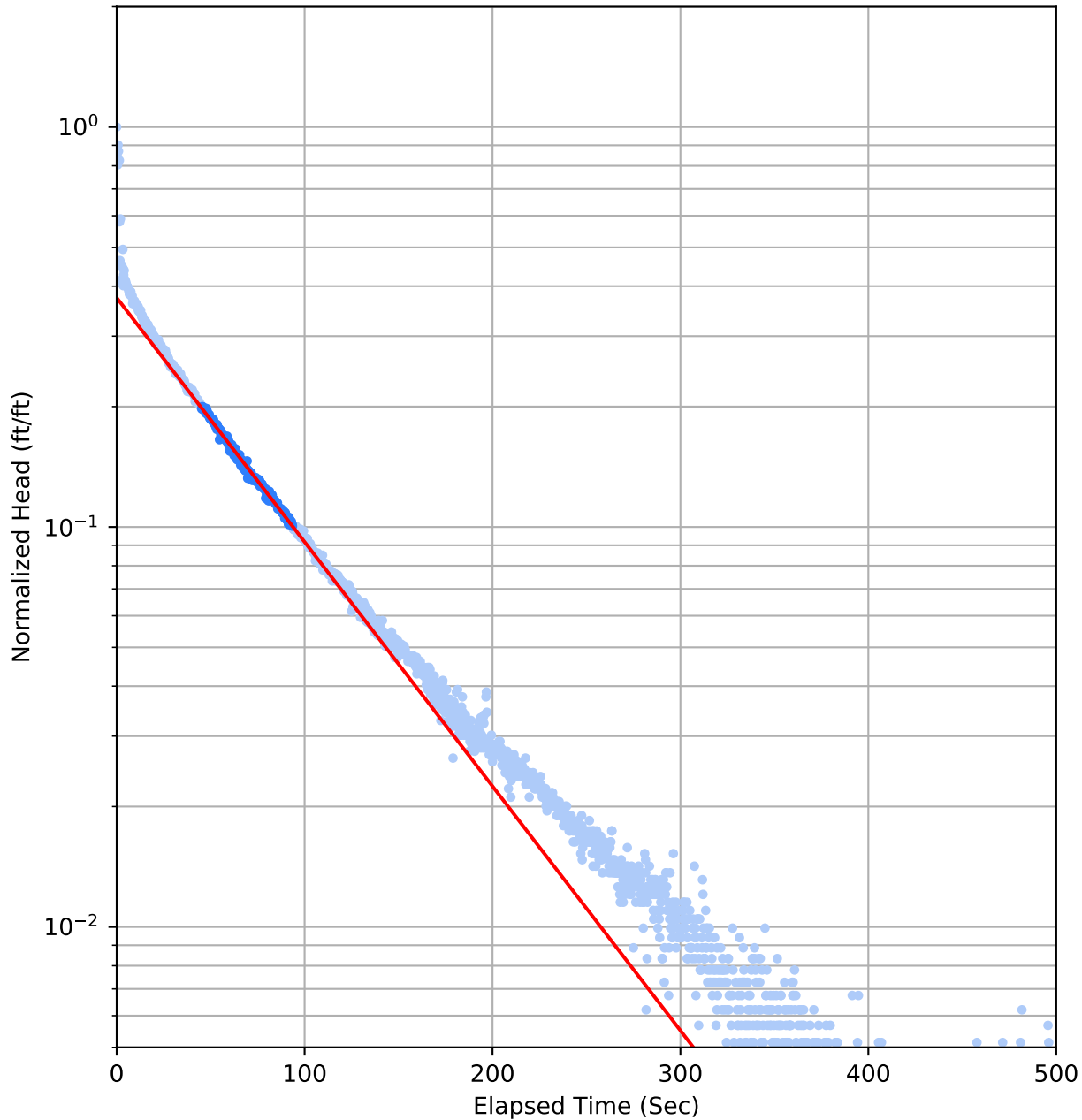
Aquifer Model: Unconfined

Solution Method: Zlotnik-Goss-Duffield

K = 69.6 ft/day

y0 = 0.02937 ft

Falling Head Test 1 at M-39R-A



Analysis Results

Hydraulic Conductivity (ft/day)	8
Standard Error of K (ft/day)	0.047

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	110.10
Static Water Column Height (ft)	10.10
Initial Displacement (ft)	1.88
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.10
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	29.80
Screen Interval (ft bgs)	24.9 - 39.9
Screened Across Water Table?	Yes
Screened Unit	CROSS

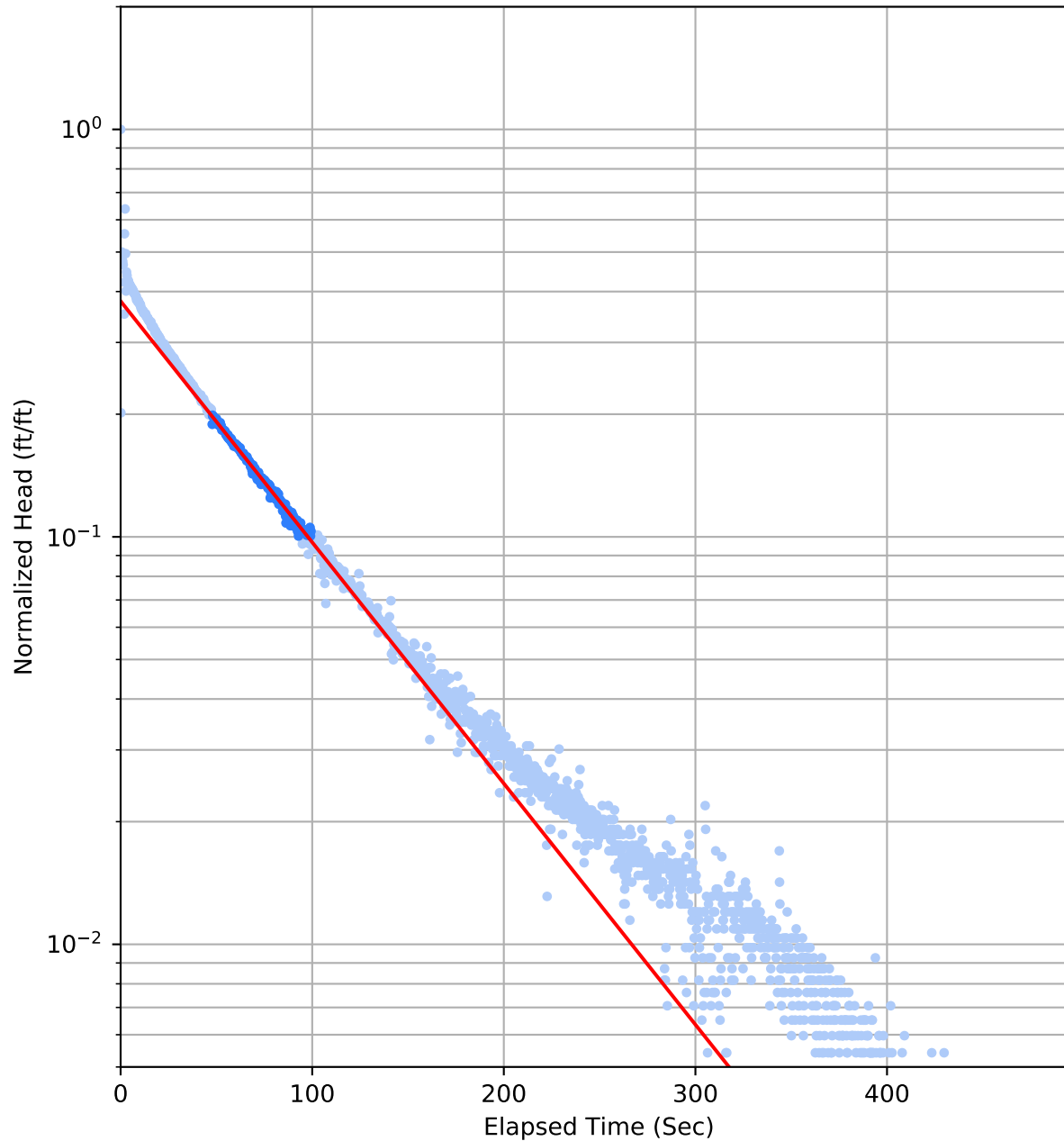
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 03-20-2019

Falling Head Test 2 at M-39R-A



Analysis Results

Hydraulic Conductivity (ft/day)	7.8
Standard Error of K (ft/day)	0.053

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	110.10
Static Water Column Height (ft)	10.10
Initial Displacement (ft)	1.82
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.10
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	29.80
Screen Interval (ft bgs)	24.9 - 39.9
Screened Across Water Table?	Yes
Screened Unit	CROSS

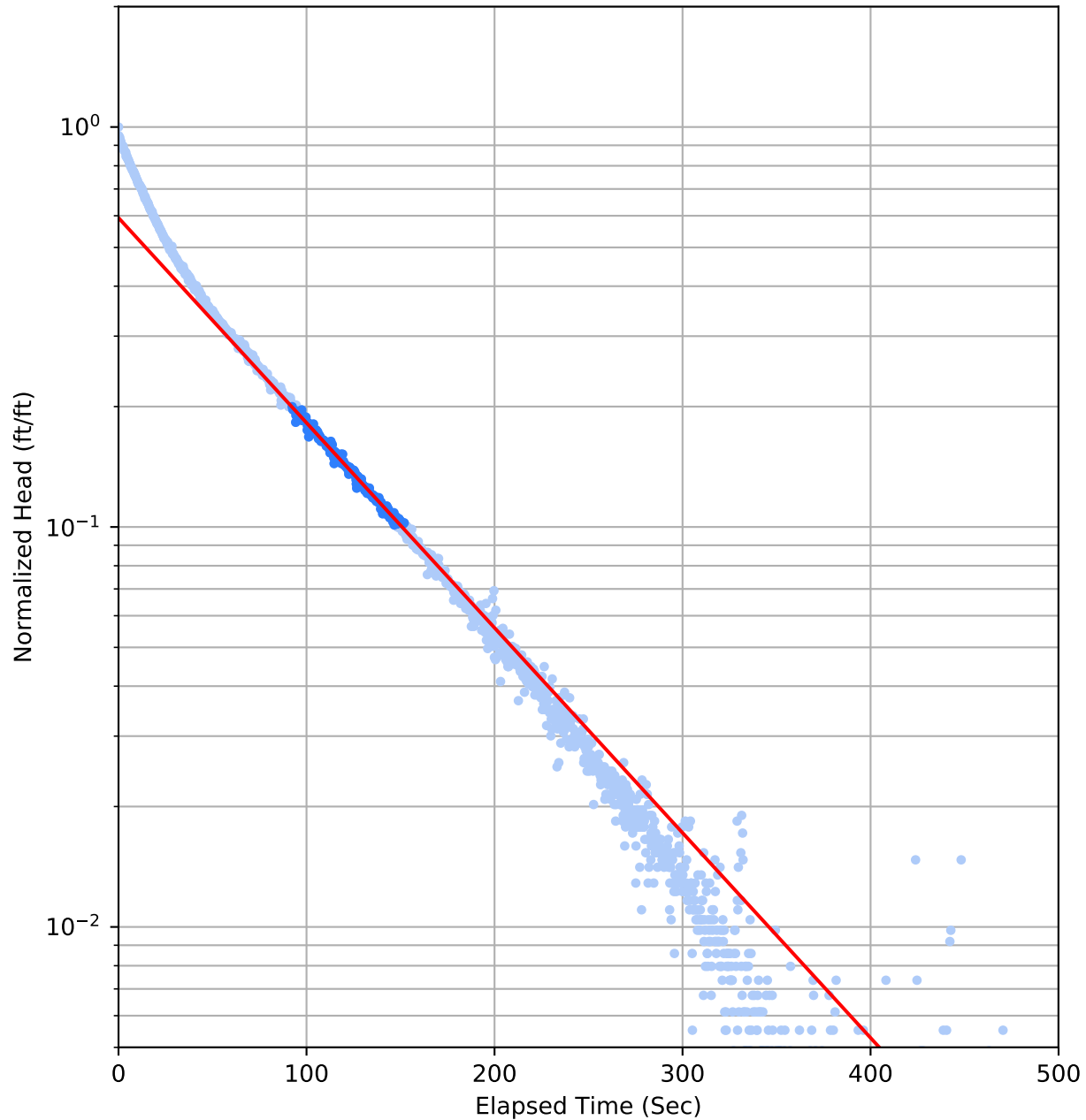
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 03-20-2019

Rising Head Test 1 at M-39R-A



Analysis Results

Hydraulic Conductivity (ft/day)	6.7
Standard Error of K (ft/day)	0.04

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	110.10
Static Water Column Height (ft)	10.10
Initial Displacement (ft)	1.63
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.10
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	29.80
Screen Interval (ft bgs)	24.9 - 39.9
Screened Across Water Table?	Yes
Screened Unit	CROSS

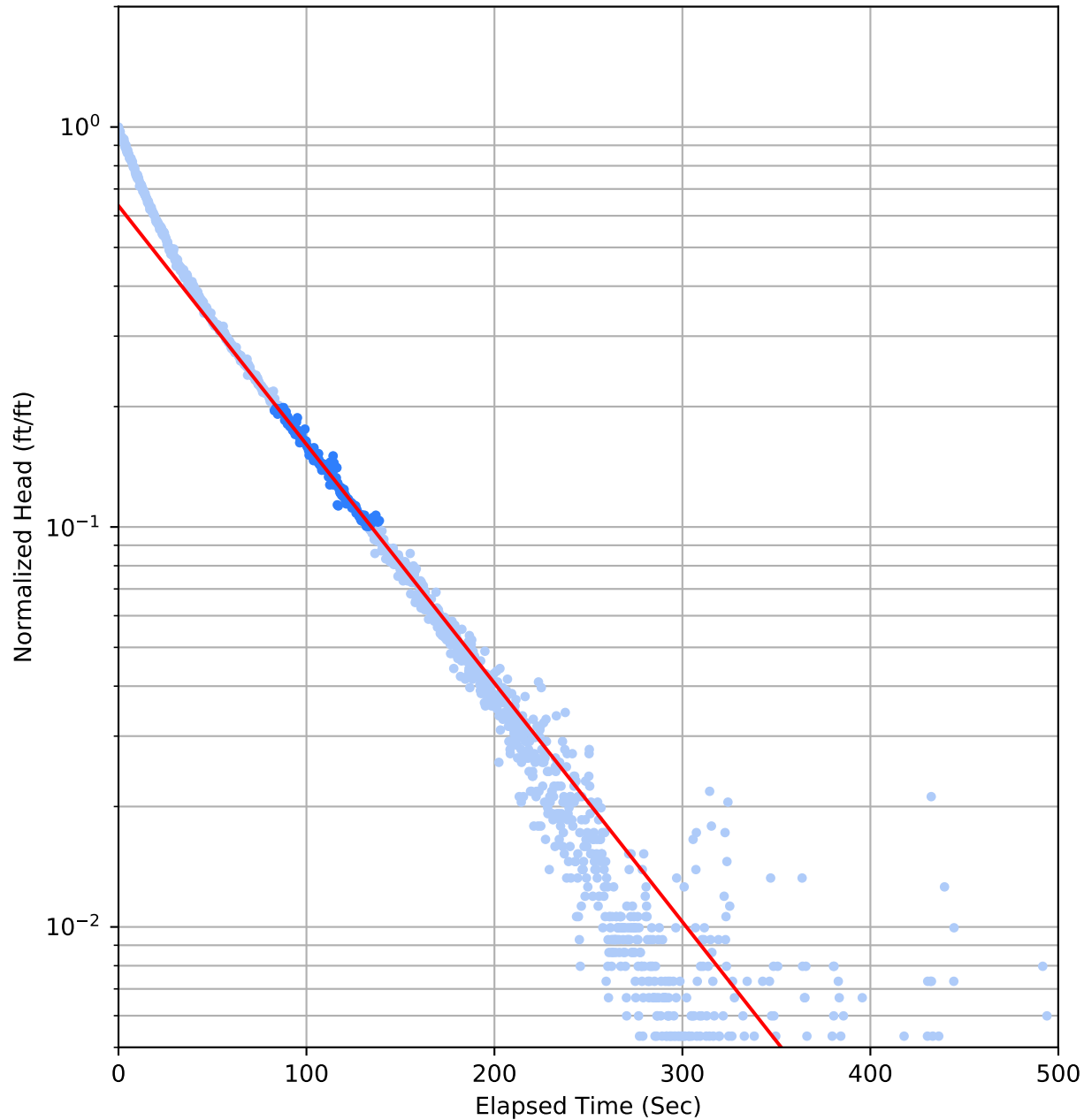
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 03-20-2019

Rising Head Test 2 at M-39R-A



Analysis Results

Hydraulic Conductivity (ft/day)	7.8
Standard Error of K (ft/day)	0.086

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	110.10
Static Water Column Height (ft)	10.10
Initial Displacement (ft)	1.52
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.10
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	29.80
Screen Interval (ft bgs)	24.9 - 39.9
Screened Across Water Table?	Yes
Screened Unit	CROSS

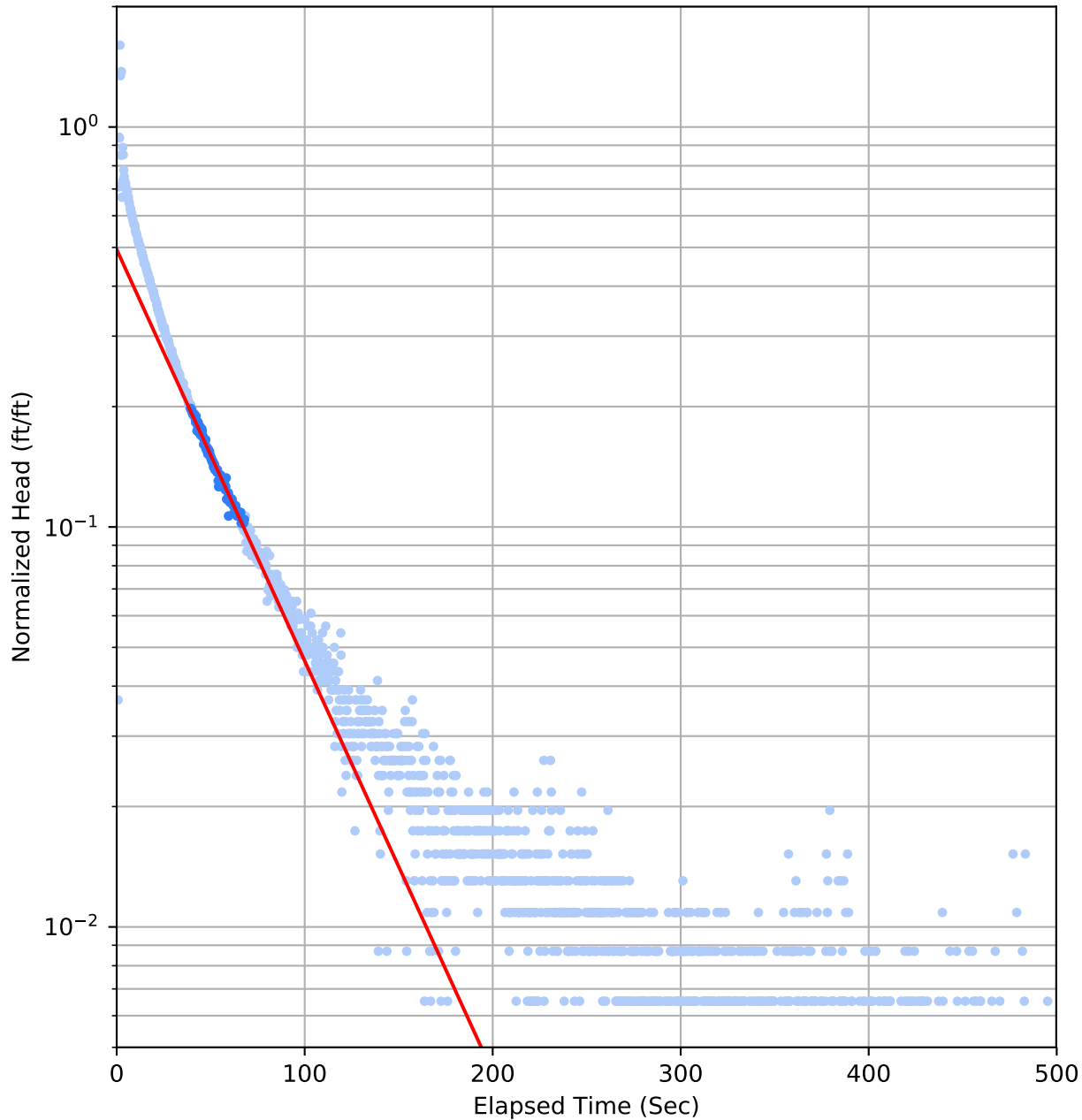
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 03-20-2019

Falling Head Test 1 at M-39R-B



Analysis Results

Hydraulic Conductivity (ft/day)	13
Standard Error of K (ft/day)	0.17

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	110.10
Static Water Column Height (ft)	10.10
Initial Displacement (ft)	0.46
Expected Initial Displacement (ft)	0.46
Saturated Screen Length (ft)	10.10
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	29.80
Screen Interval (ft bgs)	24.9 - 39.9
Screened Across Water Table?	Yes
Screened Unit	CROSS

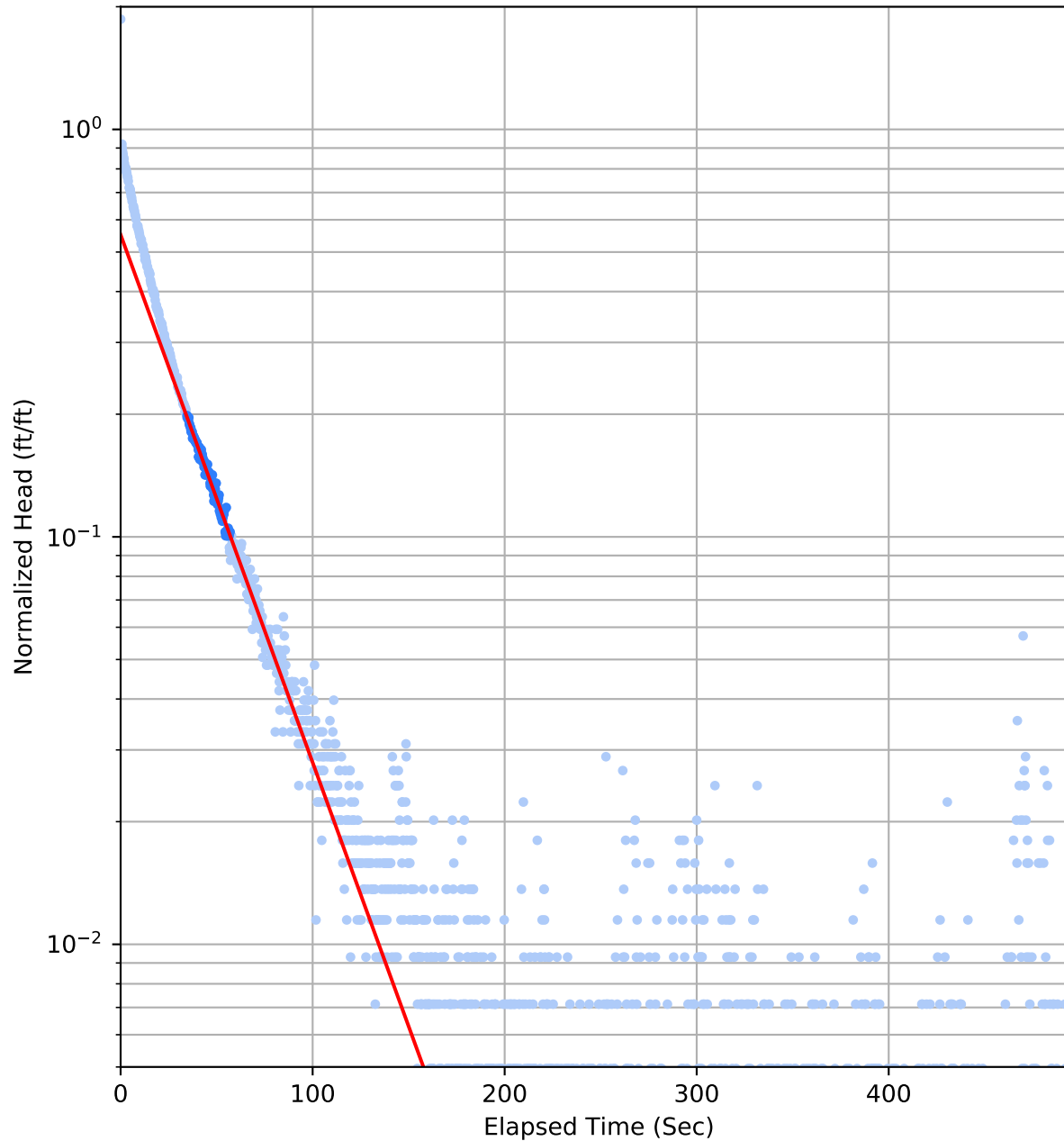
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 03-20-2019

Rising Head Test 1 at M-39R-B



Analysis Results

Hydraulic Conductivity (ft/day)	17
Standard Error of K (ft/day)	0.27

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	110.10
Static Water Column Height (ft)	10.10
Initial Displacement (ft)	0.46
Expected Initial Displacement (ft)	0.46
Saturated Screen Length (ft)	10.10
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	29.80
Screen Interval (ft bgs)	24.9 - 39.9
Screened Across Water Table?	Yes
Screened Unit	CROSS

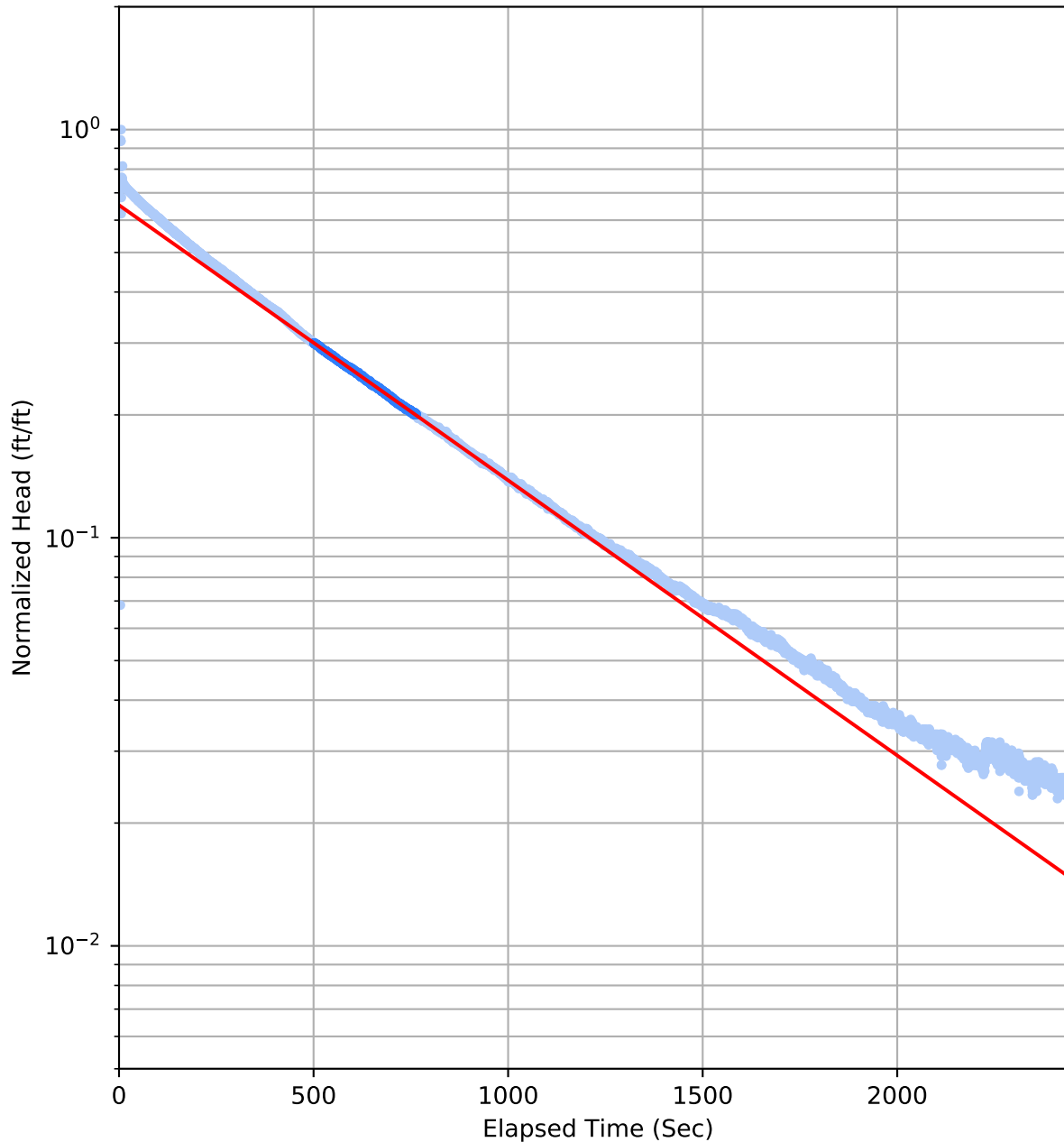
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 03-20-2019

Falling Head Test 1 at M-260



Analysis Results

Hydraulic Conductivity (ft/day)	0.58
Standard Error of K (ft/day)	0.00045

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	139.16
Static Water Column Height (ft)	39.16
Initial Displacement (ft)	2.09
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	35.84
Screen Interval (ft bgs)	65.0 - 75.0
Screened Across Water Table?	No
Screened Unit	MCF

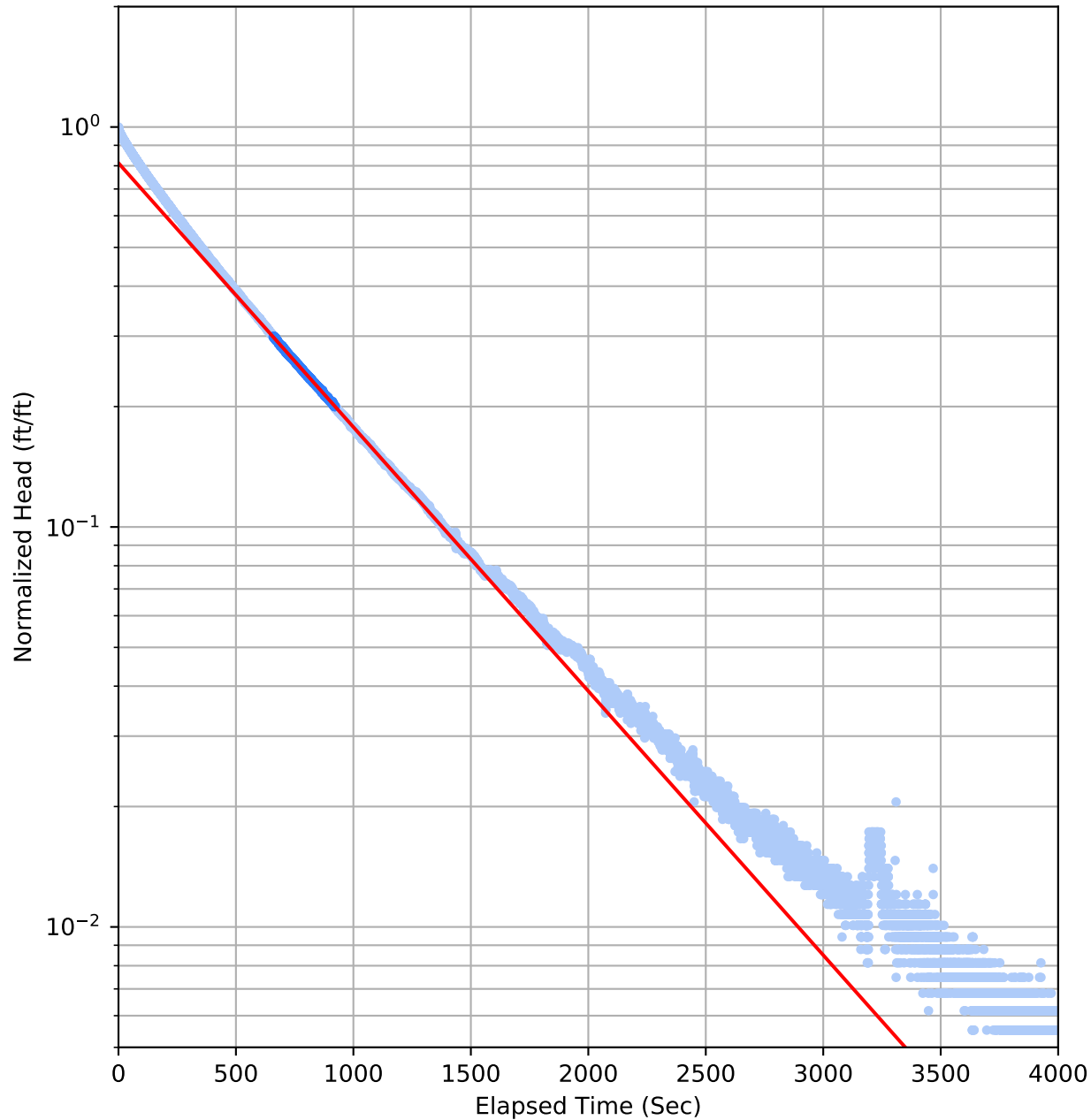
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 03-21-2019

Rising Head Test 1 at M-260



Analysis Results

Hydraulic Conductivity (ft/day)	0.57
Standard Error of K (ft/day)	0.00047

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	139.16
Static Water Column Height (ft)	39.16
Initial Displacement (ft)	1.53
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	35.84
Screen Interval (ft bgs)	65.0 - 75.0
Screened Across Water Table?	No
Screened Unit	MCF

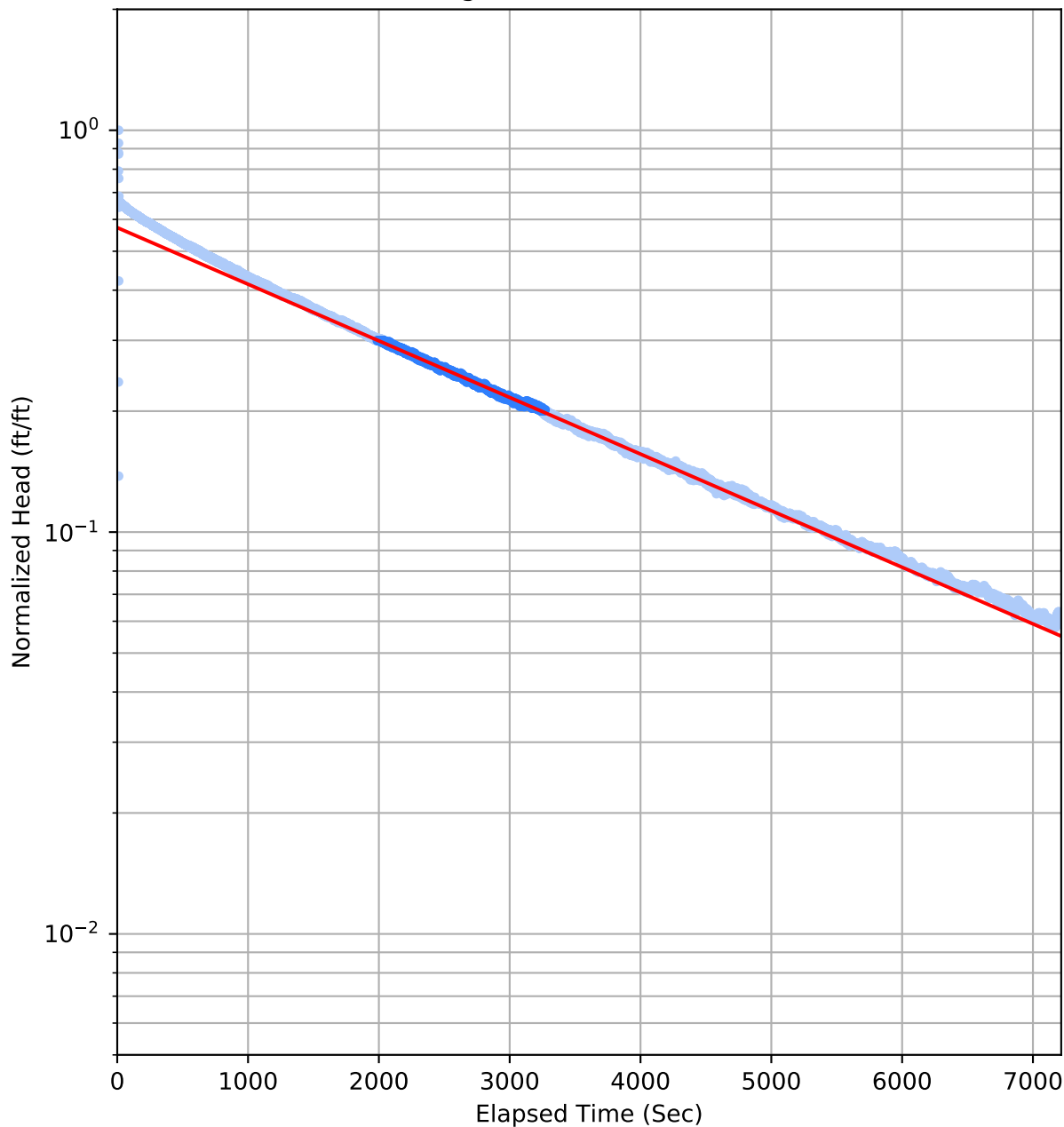
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 03-21-2019

Falling Head Test 1 at M-261



Analysis Results

Hydraulic Conductivity (ft/day)	0.09
Standard Error of K (ft/day)	0.00016

Aquifer and Well Construction Parameters

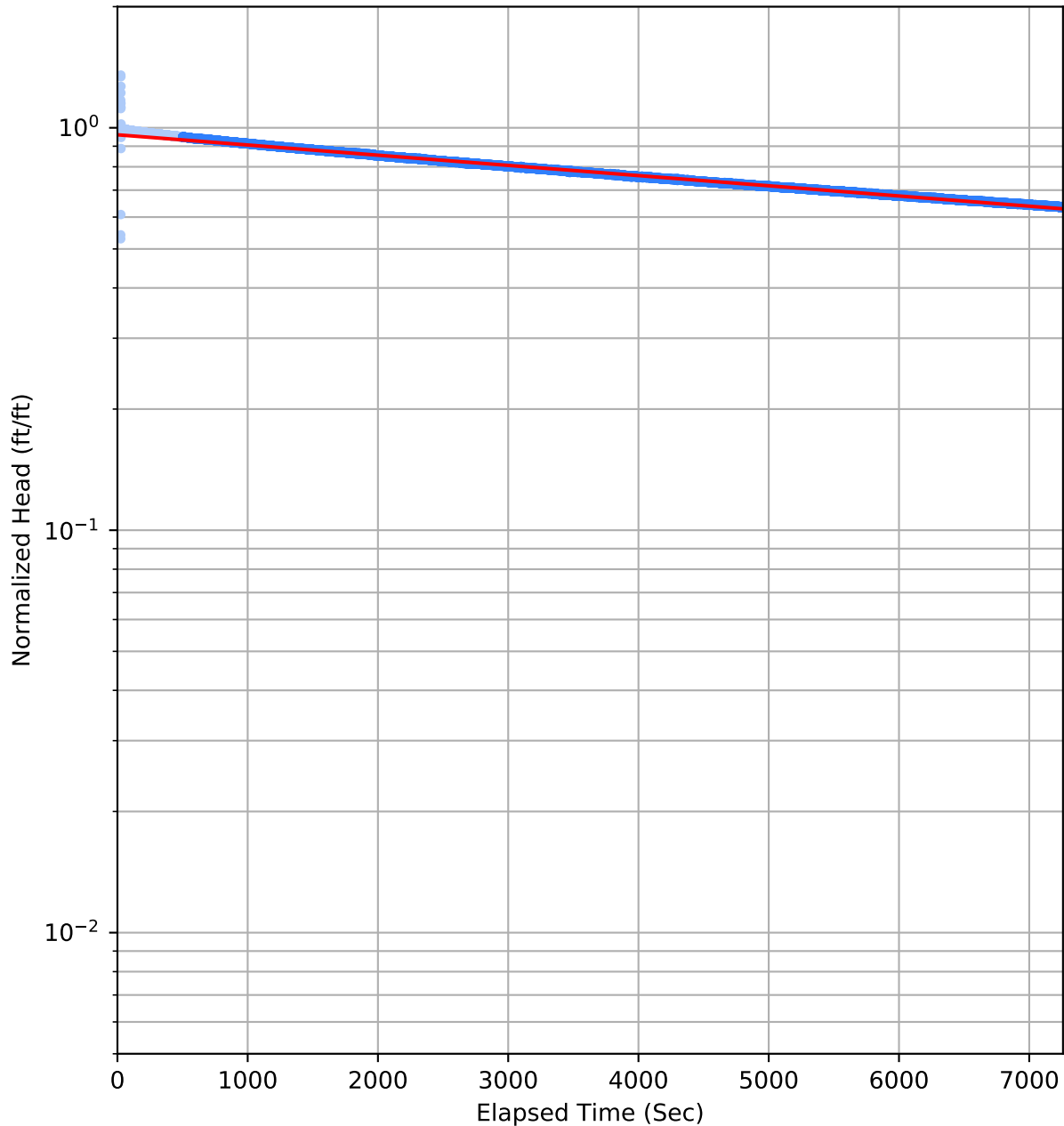
Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	142.57
Static Water Column Height (ft)	42.57
Initial Displacement (ft)	2.34
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	15.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	32.43
Screen Interval (ft bgs)	60.0 - 75.0
Screened Across Water Table?	No
Screened Unit	MCF

Notes:
 Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 03-22-2019

Falling Head Test 1 at M-262



Analysis Results

Hydraulic Conductivity (ft/day)	0.022
Standard Error of K (ft/day)	6.8e-06

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	157.83
Static Water Column Height (ft)	57.83
Initial Displacement (ft)	1.60
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	32.17
Screen Interval (ft bgs)	80.0 - 90.0
Screened Across Water Table?	No
Screened Unit	MCF

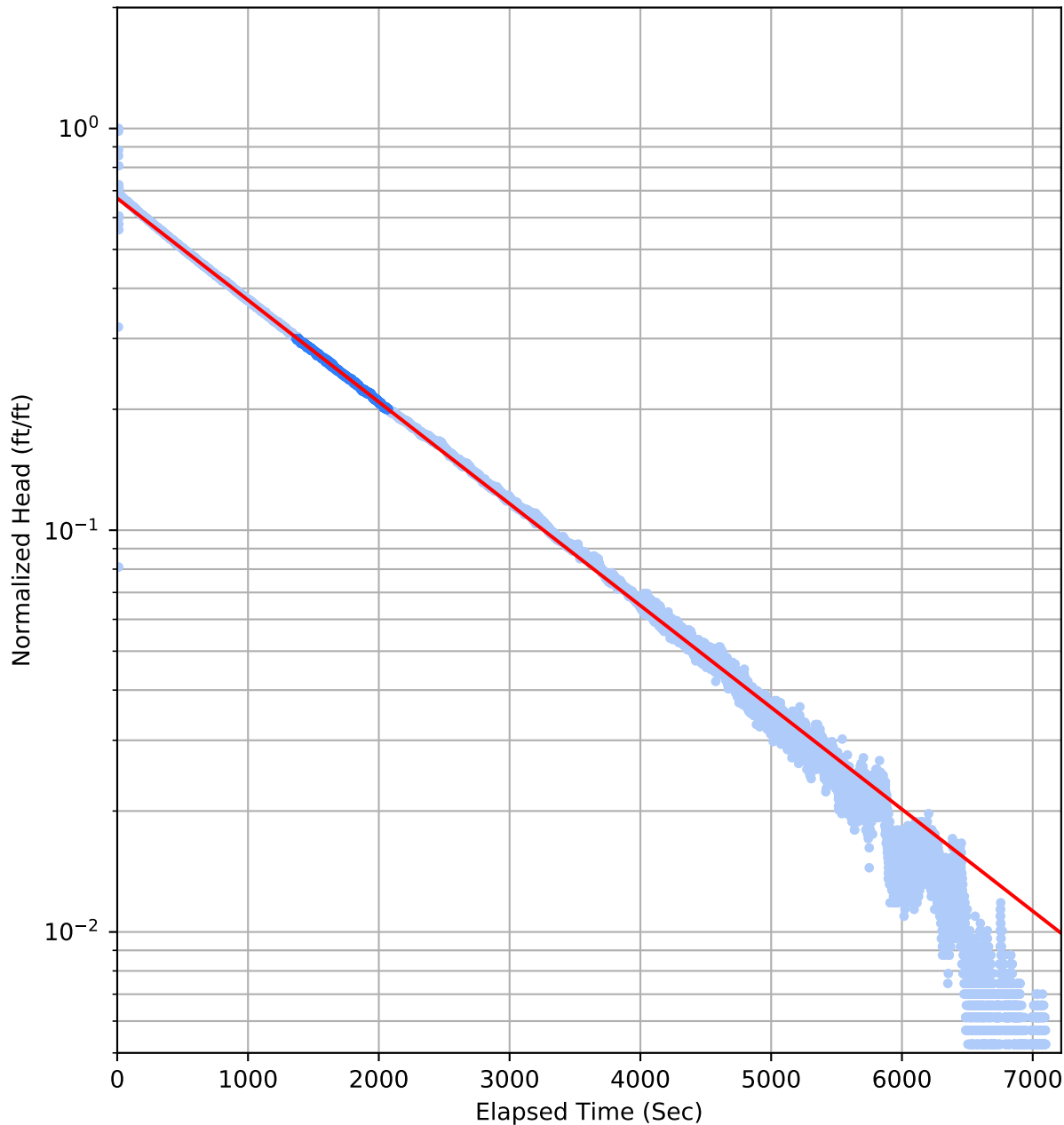
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Water levels did not recover to the recommended normalized head range.
Fit in normalized head range 0.00 to 1.00

Test date: 03-22-2019

Falling Head Test 1 at M-263



Analysis Results

Hydraulic Conductivity (ft/day)	0.22
Standard Error of K (ft/day)	0.00013

Aquifer and Well Construction Parameters

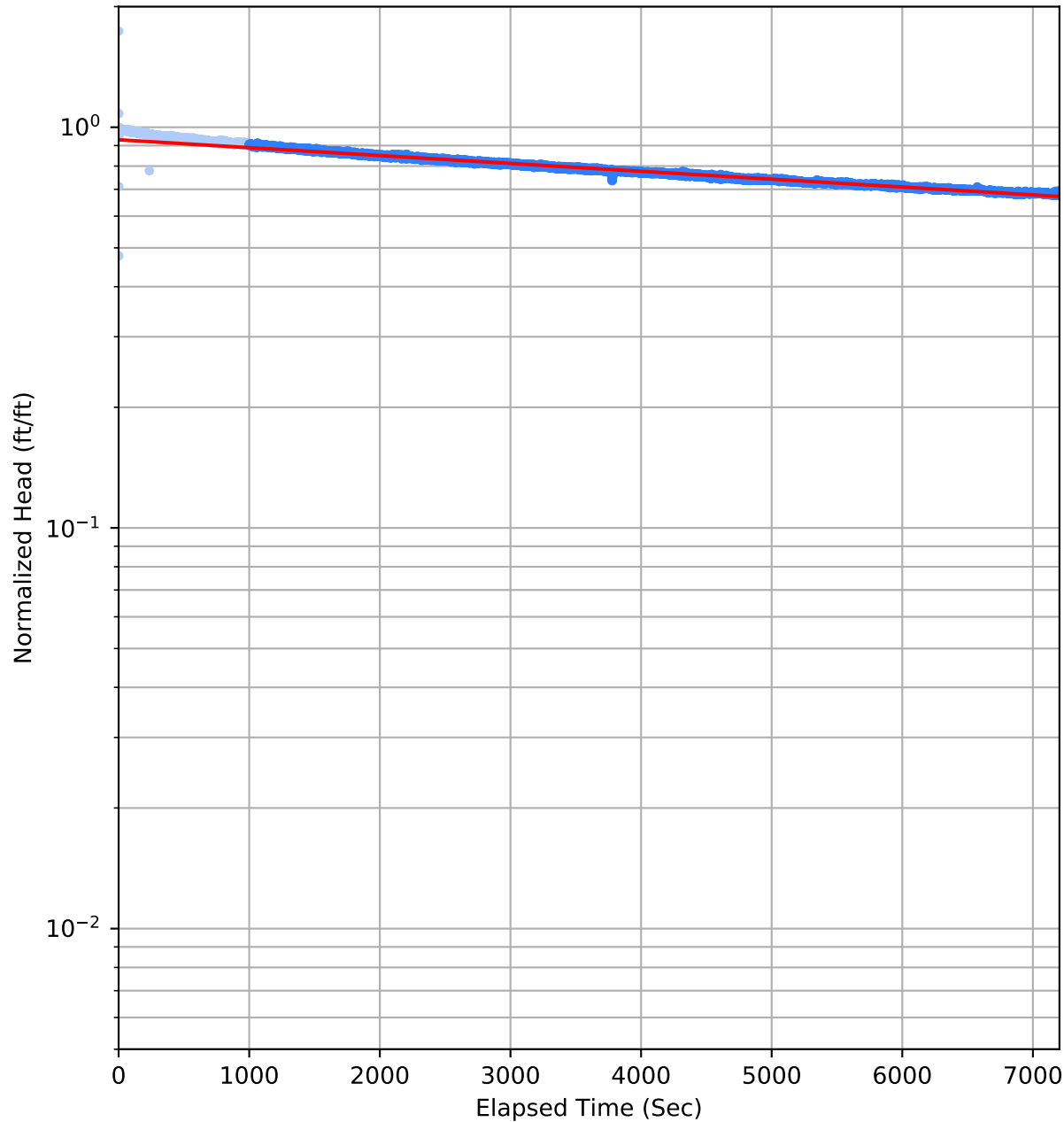
Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	137.70
Static Water Column Height (ft)	37.70
Initial Displacement (ft)	2.28
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	32.30
Screen Interval (ft bgs)	60.0 - 70.0
Screened Across Water Table?	No
Screened Unit	MCF

Notes:
 Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 03-21-2019

Falling Head Test 1 at M-264



Analysis Results

Hydraulic Conductivity (ft/day)	0.017
Standard Error of K (ft/day)	8.9e-06

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	164.61
Static Water Column Height (ft)	64.61
Initial Displacement (ft)	1.60
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	30.39
Screen Interval (ft bgs)	85.0 - 95.0
Screened Across Water Table?	No
Screened Unit	MCF

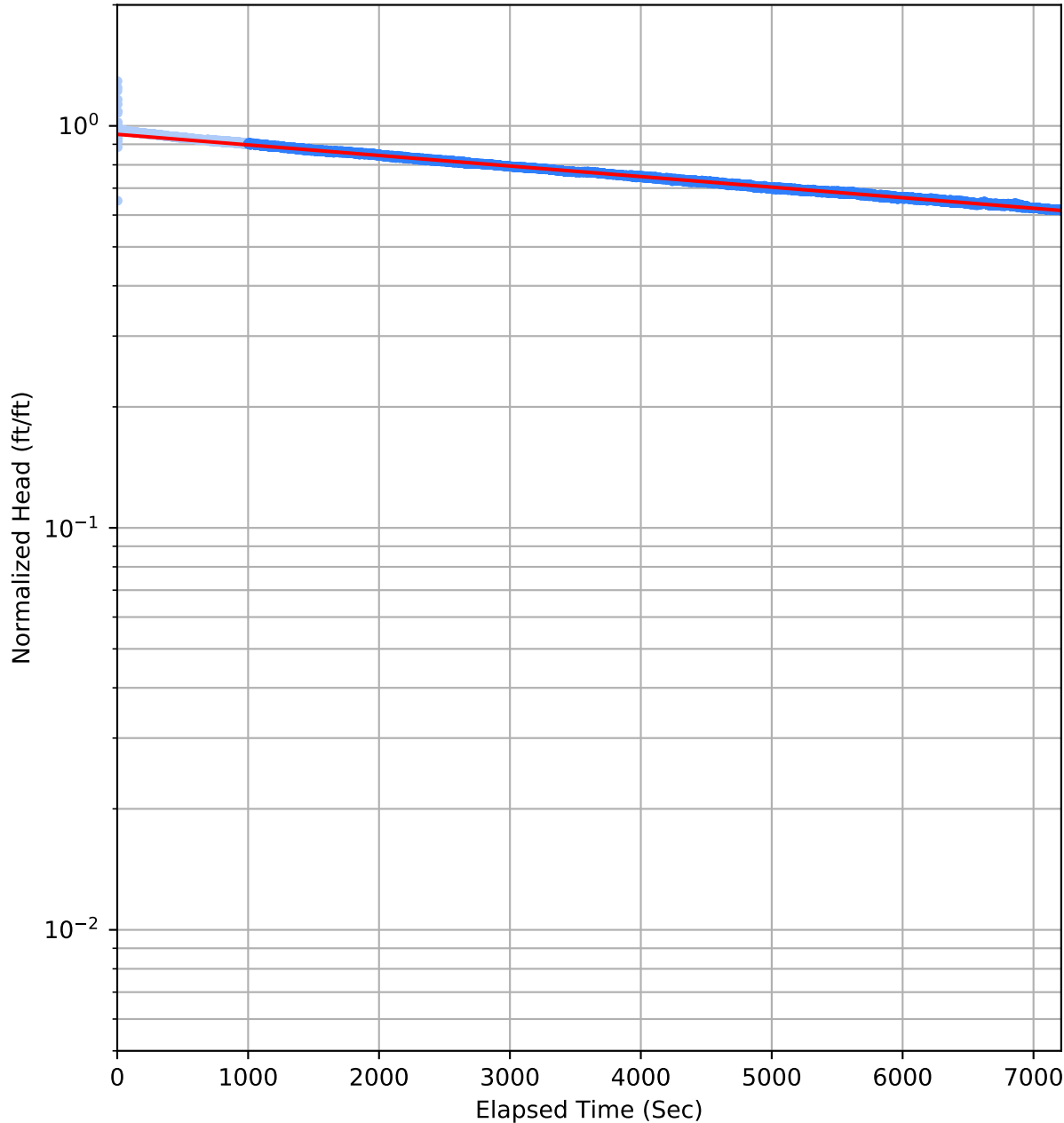
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Water levels did not recover to the recommended normalized head range.
Fit in normalized head range 0.00 to 1.00

Test date: 03-21-2019

Falling Head Test 1 at M-265



Analysis Results

Hydraulic Conductivity (ft/day)	0.023
Standard Error of K (ft/day)	4.6e-06

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	136.64
Static Water Column Height (ft)	36.64
Initial Displacement (ft)	1.60
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	33.36
Screen Interval (ft bgs)	60.0 - 70.0
Screened Across Water Table?	No
Screened Unit	MCF

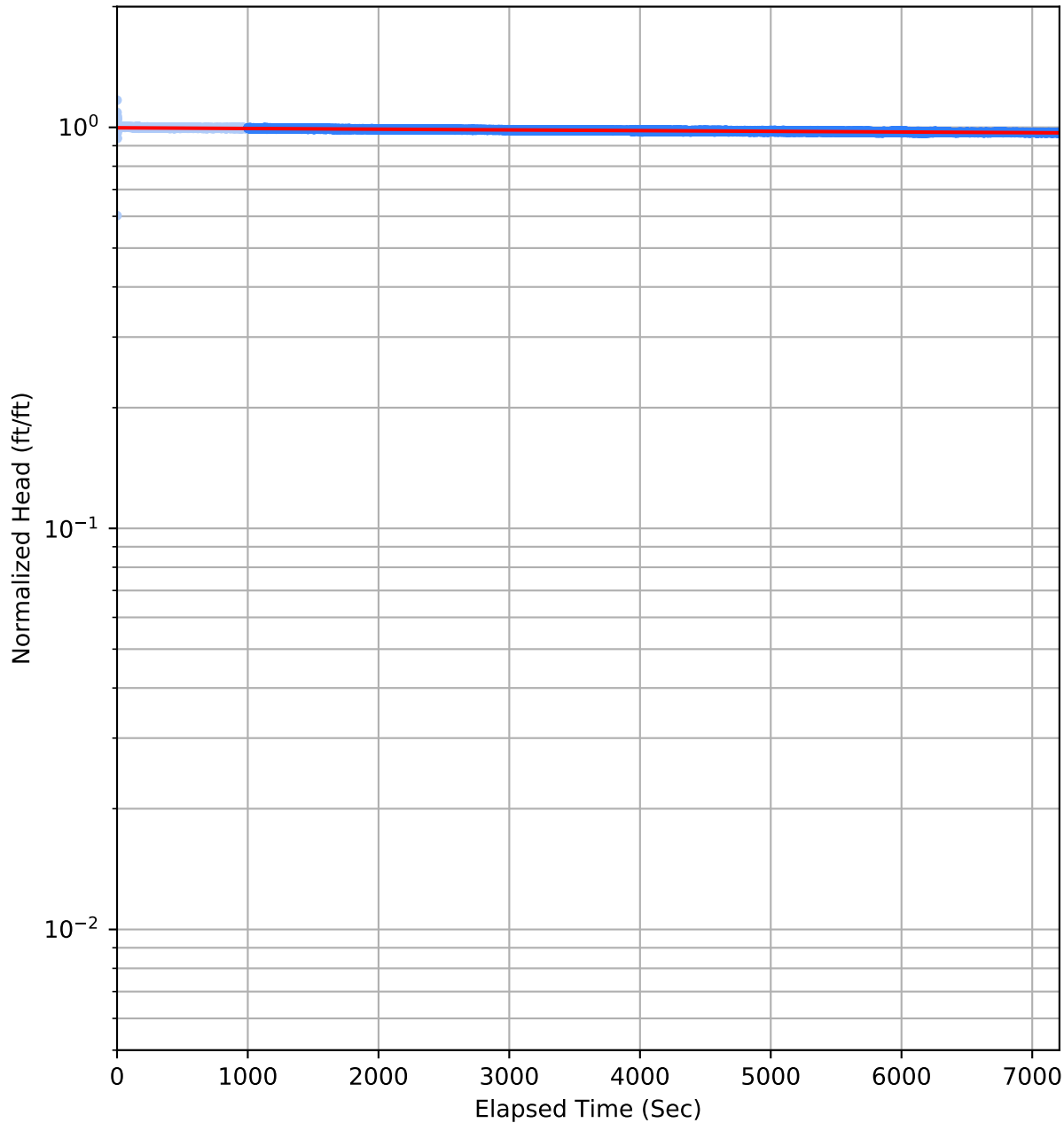
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Water levels did not recover to the recommended normalized head range.
Fit in normalized head range 0.00 to 1.00

Test date: 03-21-2019

Falling Head Test 1 at M-266



Analysis Results

Hydraulic Conductivity (ft/day)	0.0015
Standard Error of K (ft/day)	1.9e-06

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	169.44
Static Water Column Height (ft)	69.44
Initial Displacement (ft)	1.60
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	30.56
Screen Interval (ft bgs)	90.0 - 100.0
Screened Across Water Table?	No
Screened Unit	MCF

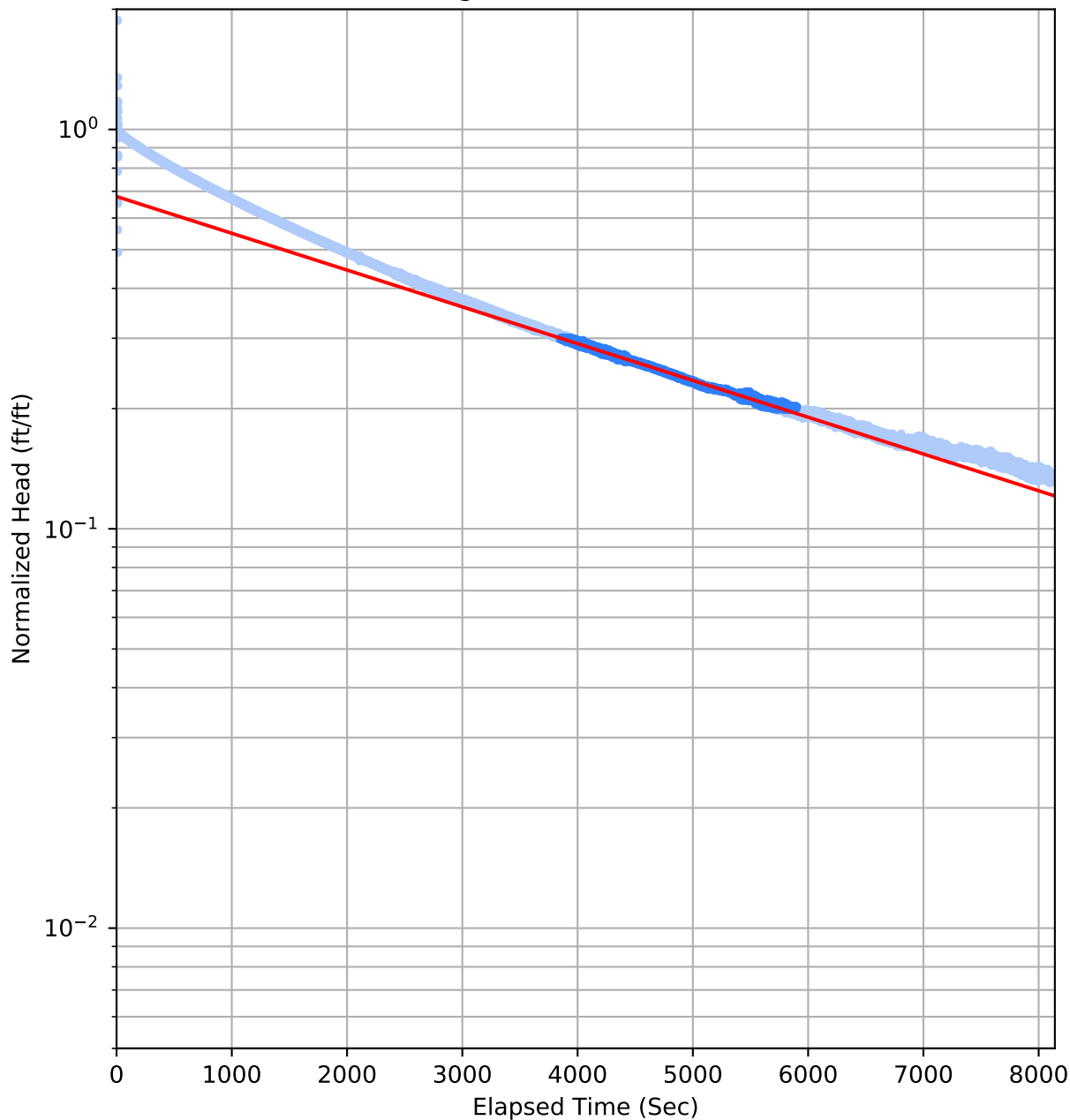
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Water levels did not recover to the recommended normalized head range.
Fit in normalized head range 0.00 to 1.00

Test date: 03-21-2019

Falling Head Test 1 at M-267



Analysis Results

Hydraulic Conductivity (ft/day)	0.06
Standard Error of K (ft/day)	4.6e-05

Aquifer and Well Construction Parameters

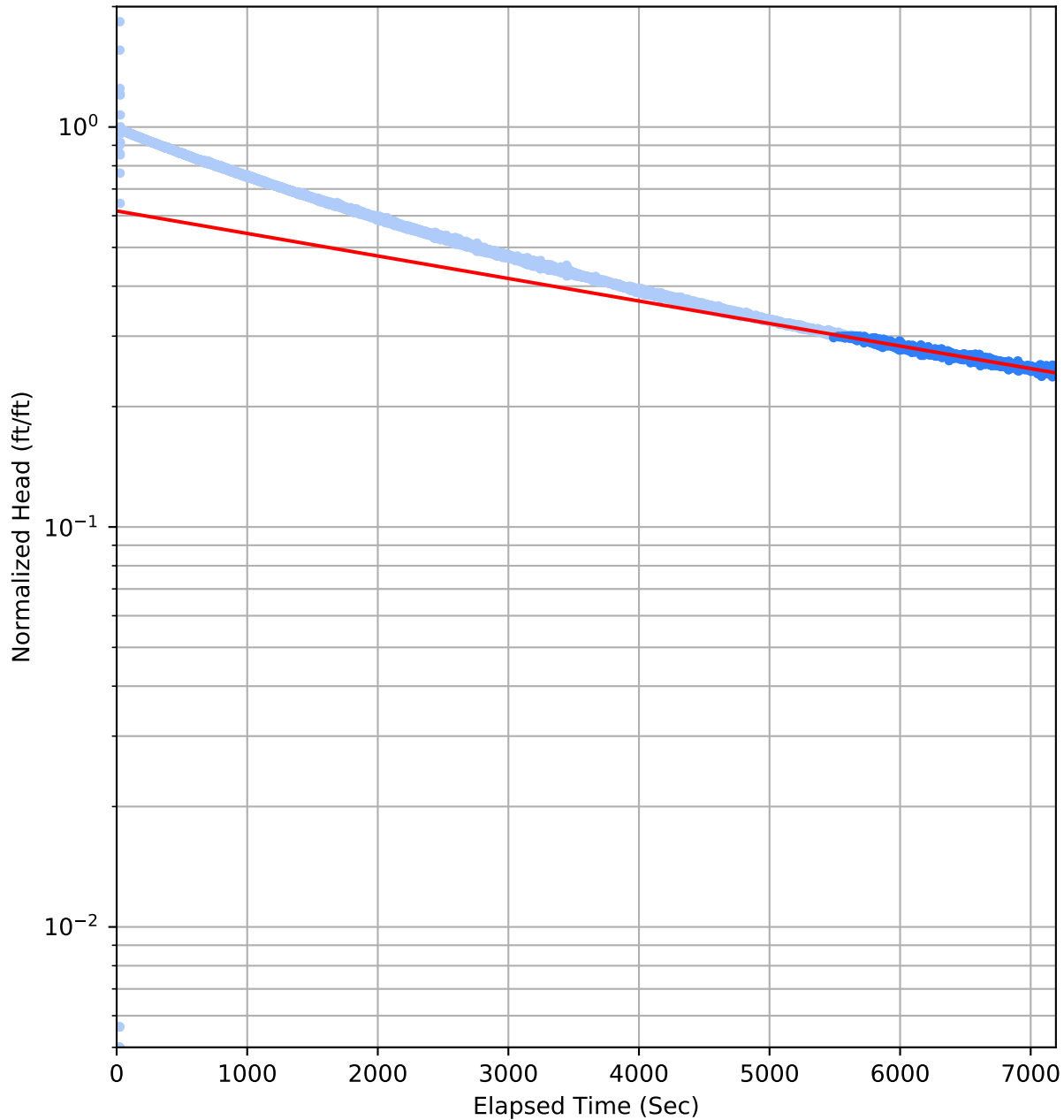
Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	151.25
Static Water Column Height (ft)	51.25
Initial Displacement (ft)	1.60
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	15.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	43.75
Screen Interval (ft bgs)	80.0 - 95.0
Screened Across Water Table?	No
Screened Unit	MCF

Notes:
 Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 03-20-2019

Falling Head Test 1 at M-268



Analysis Results

Hydraulic Conductivity (ft/day)	0.037
Standard Error of K (ft/day)	5.3e-05

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	169.95
Static Water Column Height (ft)	69.95
Initial Displacement (ft)	1.60
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	15.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	45.05
Screen Interval (ft bgs)	100.0 - 115.0
Screened Across Water Table?	No
Screened Unit	MCF

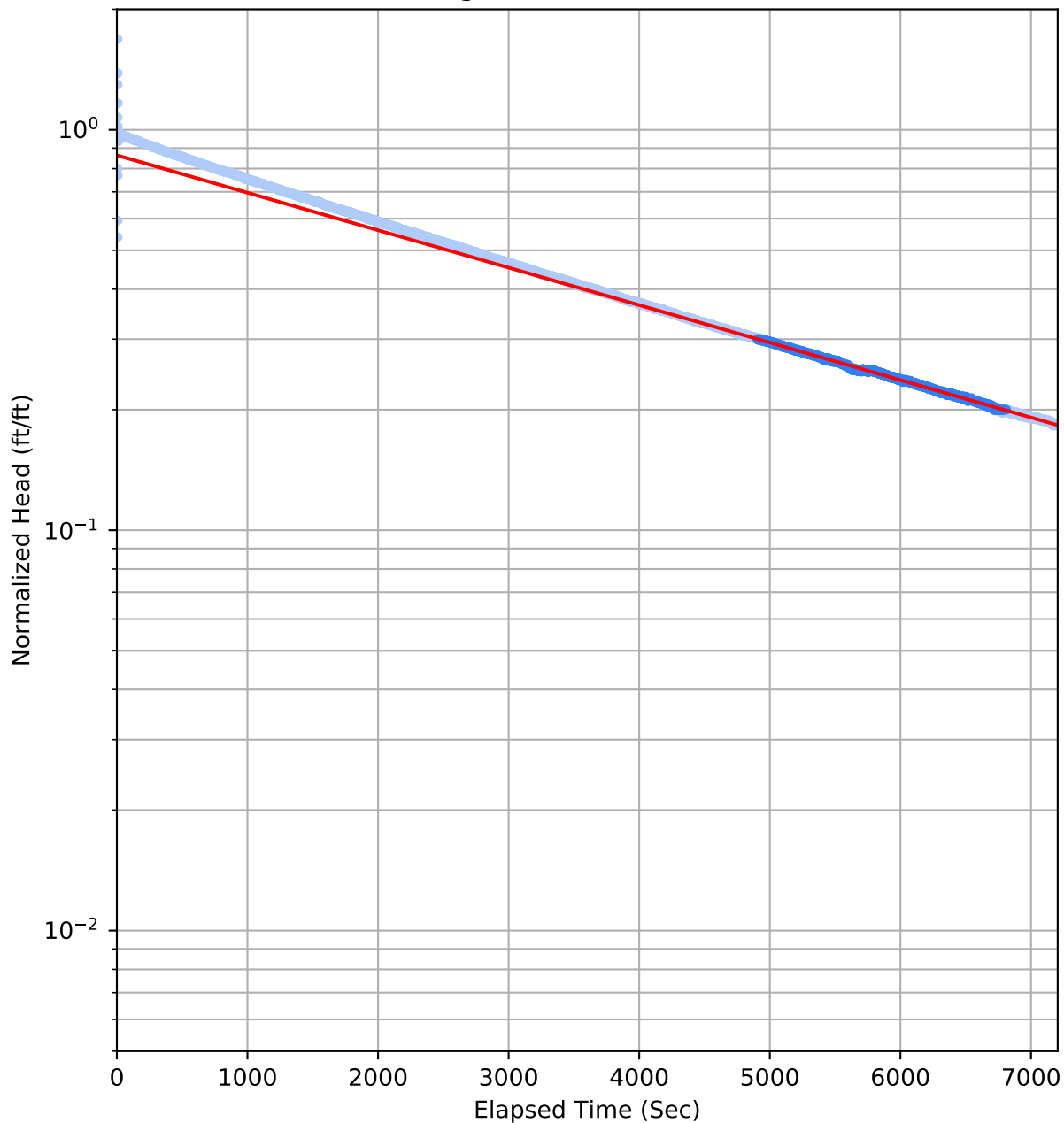
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 03-20-2019

Falling Head Test 1 at M-269



Analysis Results

Hydraulic Conductivity (ft/day)	0.081
Standard Error of K (ft/day)	4e-05

Aquifer and Well Construction Parameters

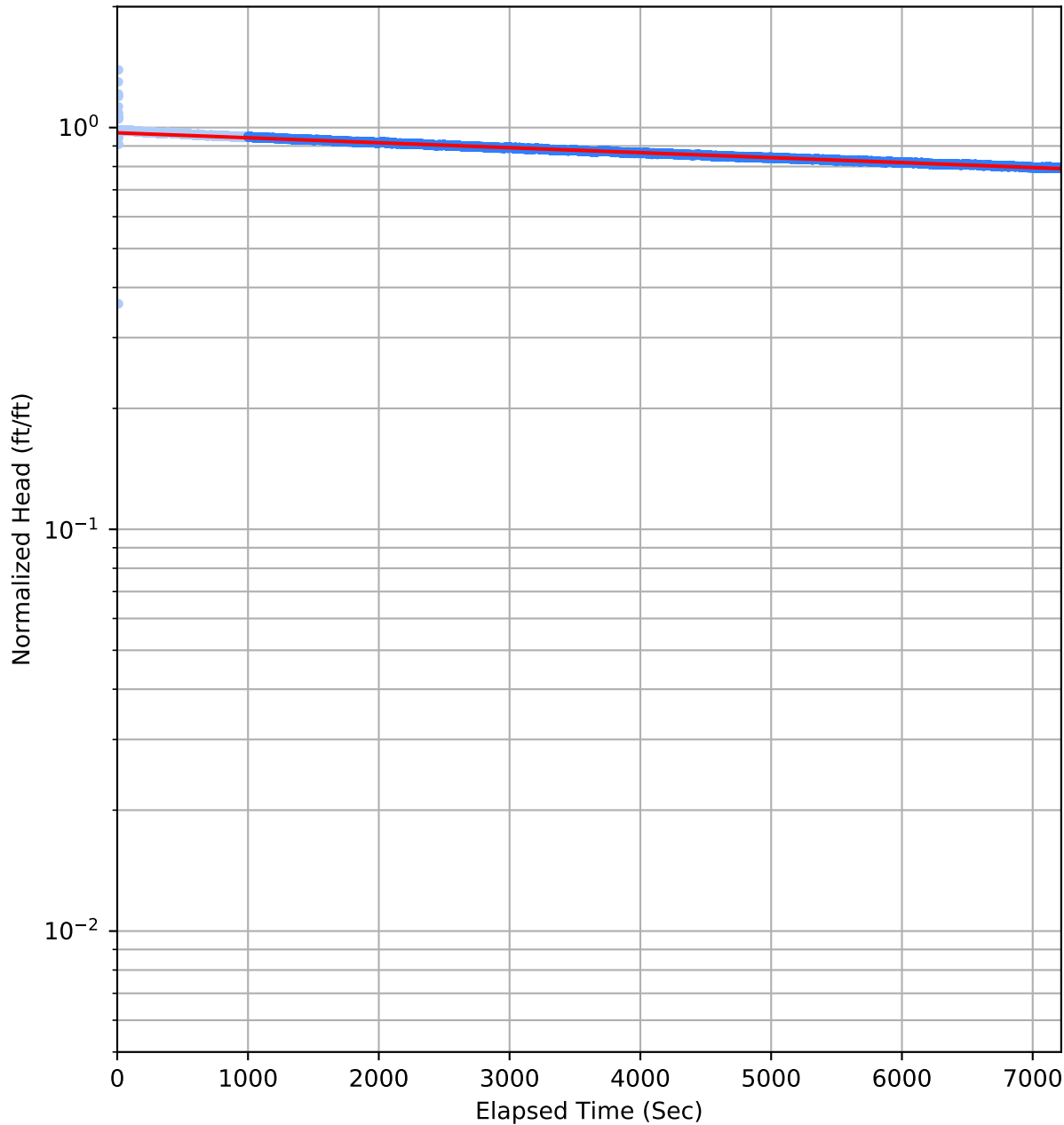
Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	136.96
Static Water Column Height (ft)	36.96
Initial Displacement (ft)	1.60
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	33.04
Screen Interval (ft bgs)	60.0 - 70.0
Screened Across Water Table?	No
Screened Unit	MCF

Notes:
 Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 03-18-2019

Falling Head Test 1 at M-270



Analysis Results

Hydraulic Conductivity (ft/day)	0.011
Standard Error of K (ft/day)	3e-06

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	166.49
Static Water Column Height (ft)	66.49
Initial Displacement (ft)	1.65
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	33.51
Screen Interval (ft bgs)	90.0 - 100.0
Screened Across Water Table?	No
Screened Unit	MCF

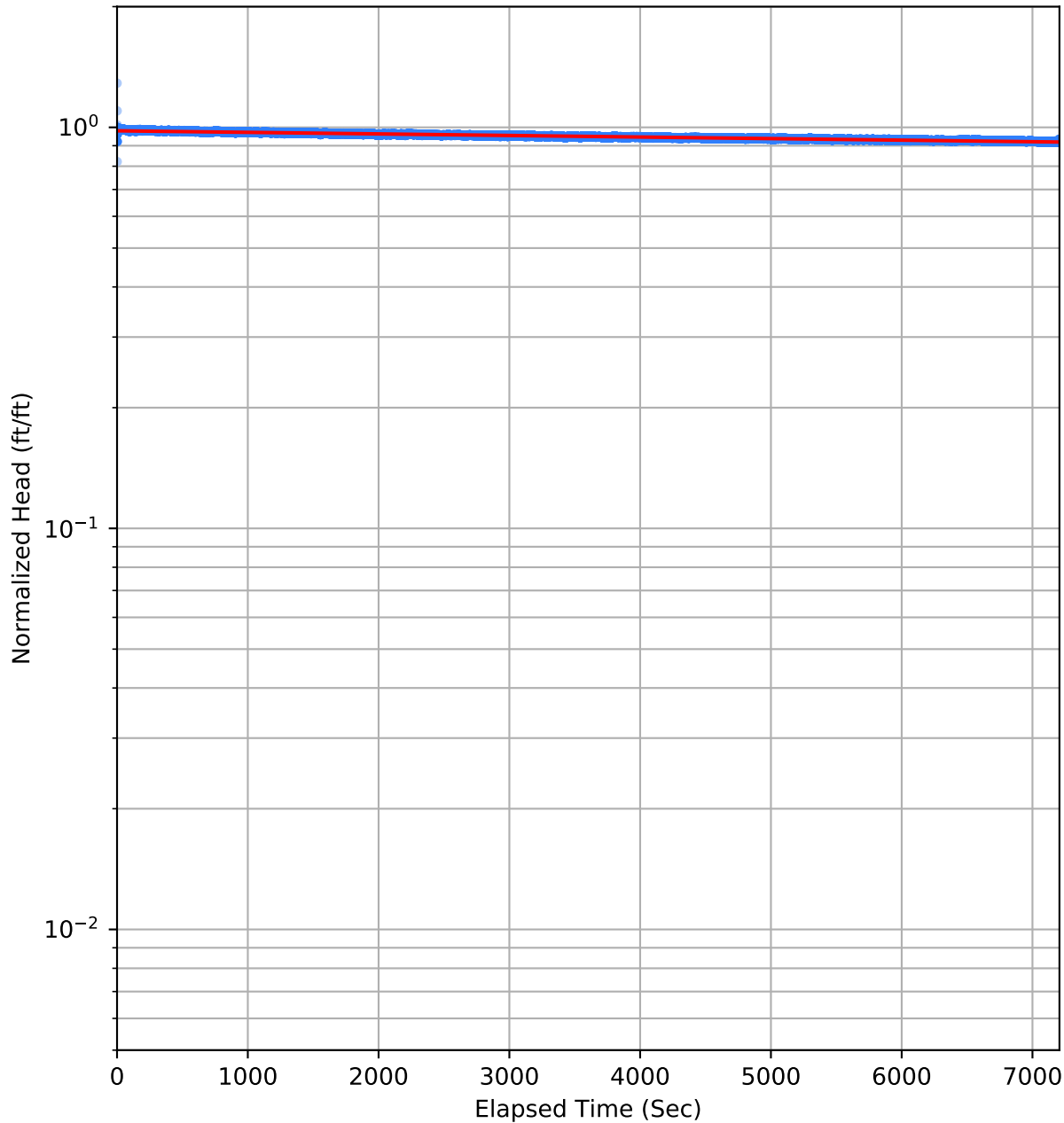
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Water levels did not recover to the recommended normalized head range.
Fit in normalized head range 0.00 to 1.00

Test date: 03-18-2019

Falling Head Test 1 at M-271



Analysis Results

Hydraulic Conductivity (ft/day)	0.0034
Standard Error of K (ft/day)	2.9e-06

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	212.99
Static Water Column Height (ft)	112.99
Initial Displacement (ft)	1.60
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	22.01
Screen Interval (ft bgs)	125.0 - 135.0
Screened Across Water Table?	No
Screened Unit	MCF

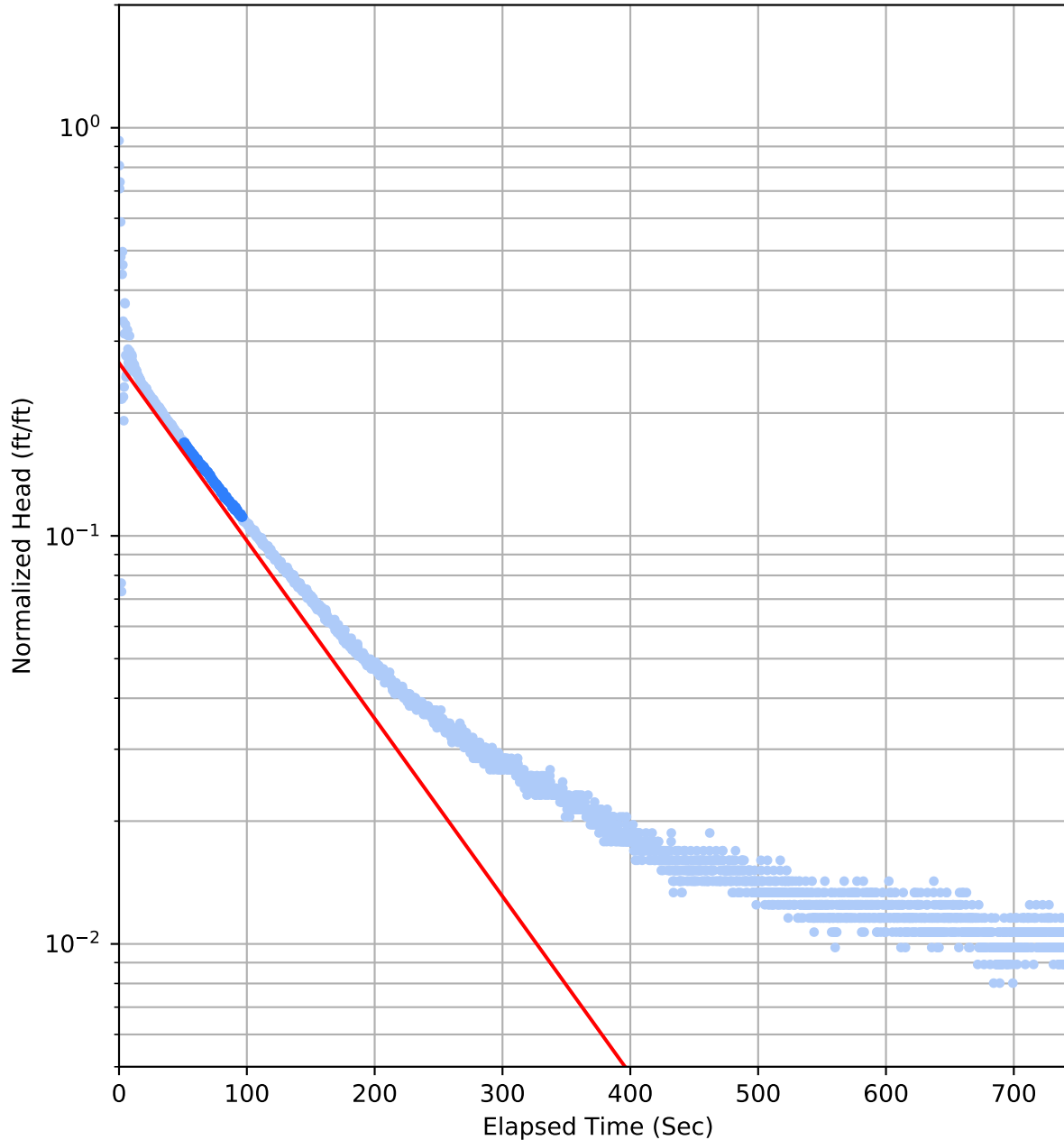
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Water levels did not recover to the recommended normalized head range.
Fit in normalized head range 0.00 to 1.00

Test date: 03-17-2019

Falling Head Test 1 at AA-09



Analysis Results

Hydraulic Conductivity (ft/day)	2.6
Standard Error of K (ft/day)	0.0083

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	130.88
Static Water Column Height (ft)	30.88
Initial Displacement (ft)	1.12
Expected Initial Displacement (ft)	0.46
Saturated Screen Length (ft)	30.88
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	39.12
Screen Interval (ft bgs)	30.0 - 70.0
Screened Across Water Table?	Yes
Screened Unit	CROSS

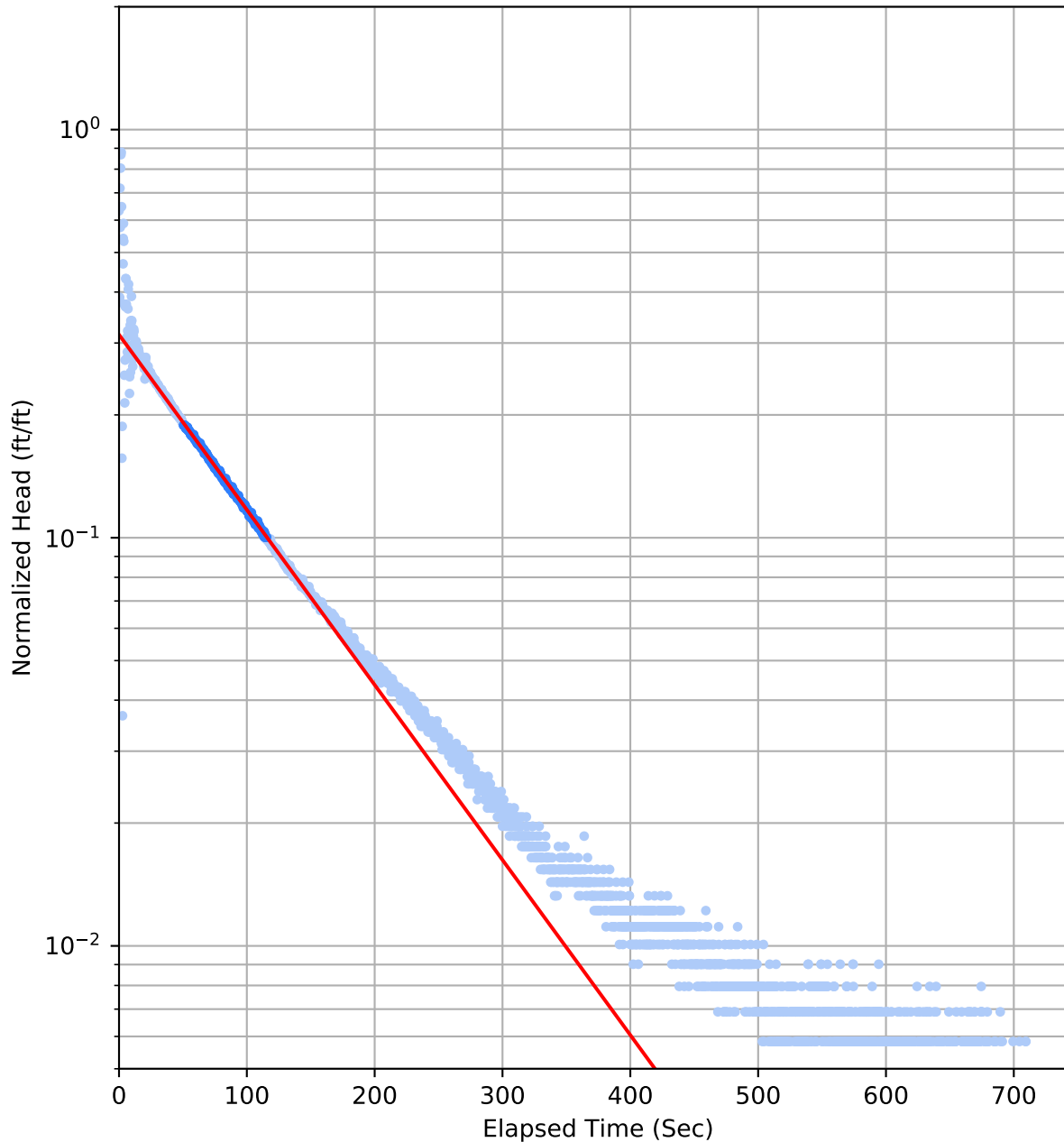
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 02-14-2018

Falling Head Test 2 at AA-09



Analysis Results

Hydraulic Conductivity (ft/day)	2.5
Standard Error of K (ft/day)	0.0059

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	130.88
Static Water Column Height (ft)	30.88
Initial Displacement (ft)	0.94
Expected Initial Displacement (ft)	0.46
Saturated Screen Length (ft)	30.88
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	39.12
Screen Interval (ft bgs)	30.0 - 70.0
Screened Across Water Table?	Yes
Screened Unit	CROSS

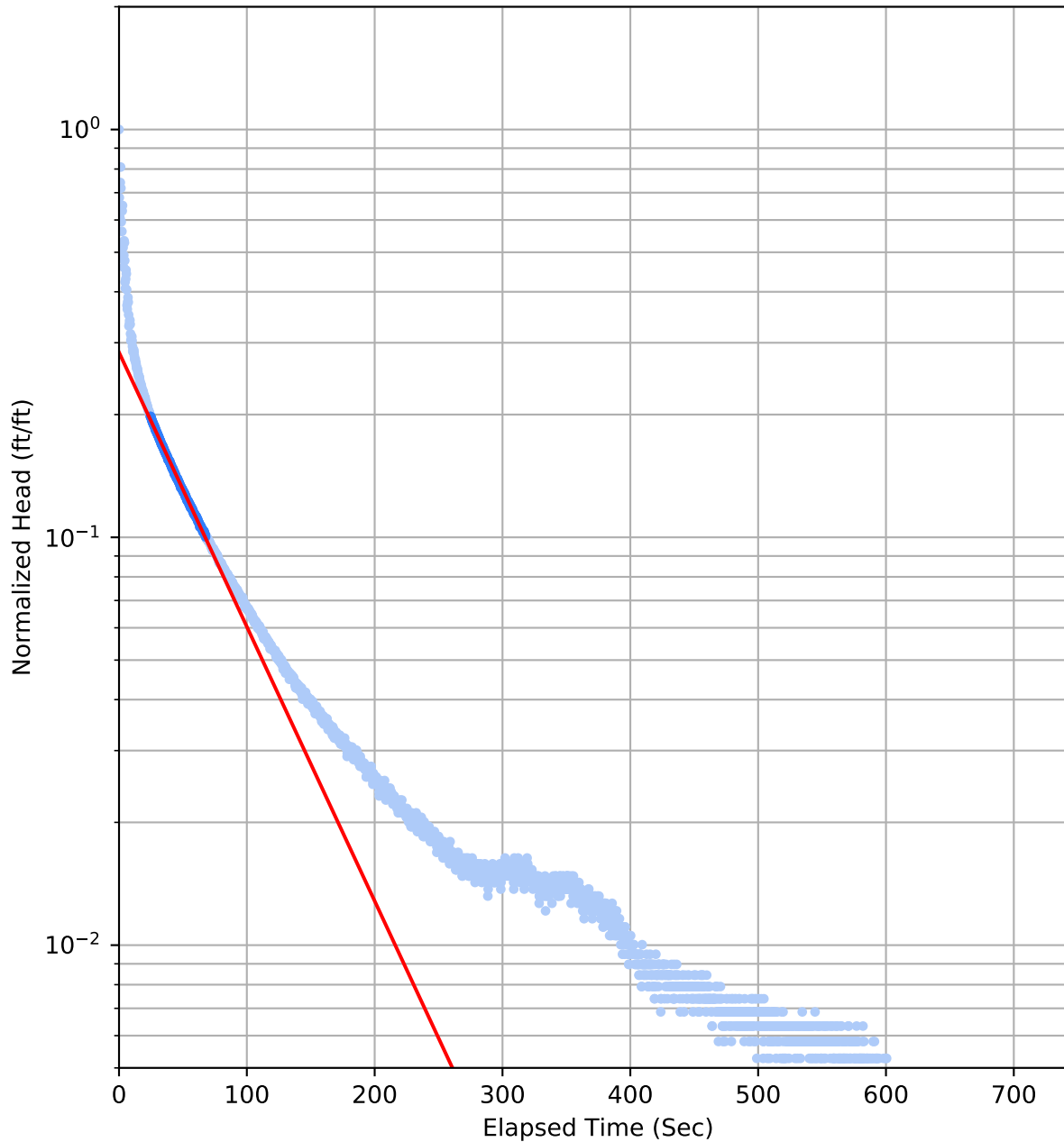
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 02-14-2018

Rising Head Test 1 at AA-09



Analysis Results

Hydraulic Conductivity (ft/day)	3.9
Standard Error of K (ft/day)	0.013

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	130.88
Static Water Column Height (ft)	30.88
Initial Displacement (ft)	1.89
Expected Initial Displacement (ft)	0.46
Saturated Screen Length (ft)	30.88
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	39.12
Screen Interval (ft bgs)	30.0 - 70.0
Screened Across Water Table?	Yes
Screened Unit	CROSS

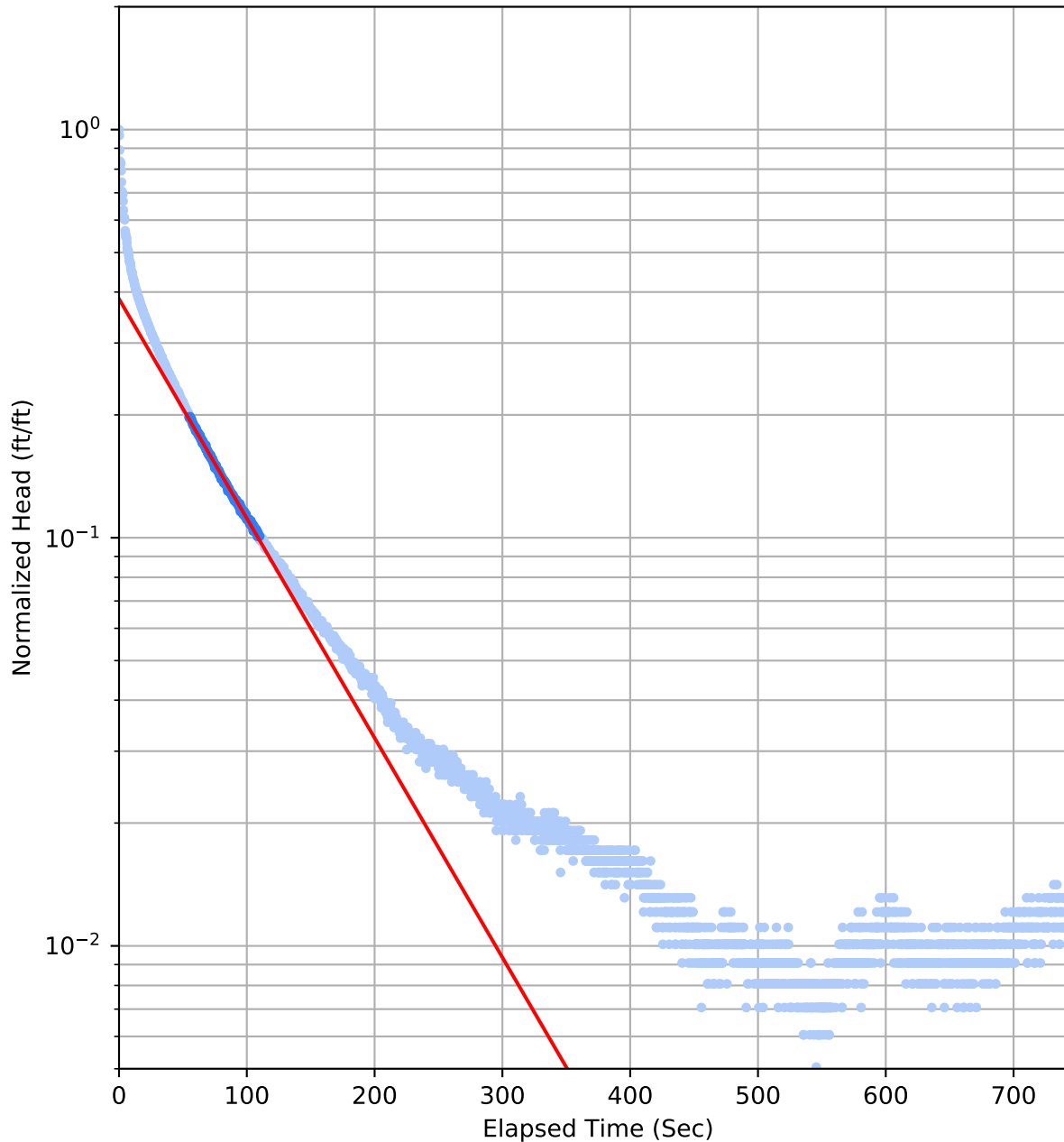
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 02-14-2018

Rising Head Test 2 at AA-09



Analysis Results

Hydraulic Conductivity (ft/day)	3.2
Standard Error of K (ft/day)	0.013

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	130.88
Static Water Column Height (ft)	30.88
Initial Displacement (ft)	0.99
Expected Initial Displacement (ft)	0.46
Saturated Screen Length (ft)	30.88
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	39.12
Screen Interval (ft bgs)	30.0 - 70.0
Screened Across Water Table?	Yes
Screened Unit	CROSS

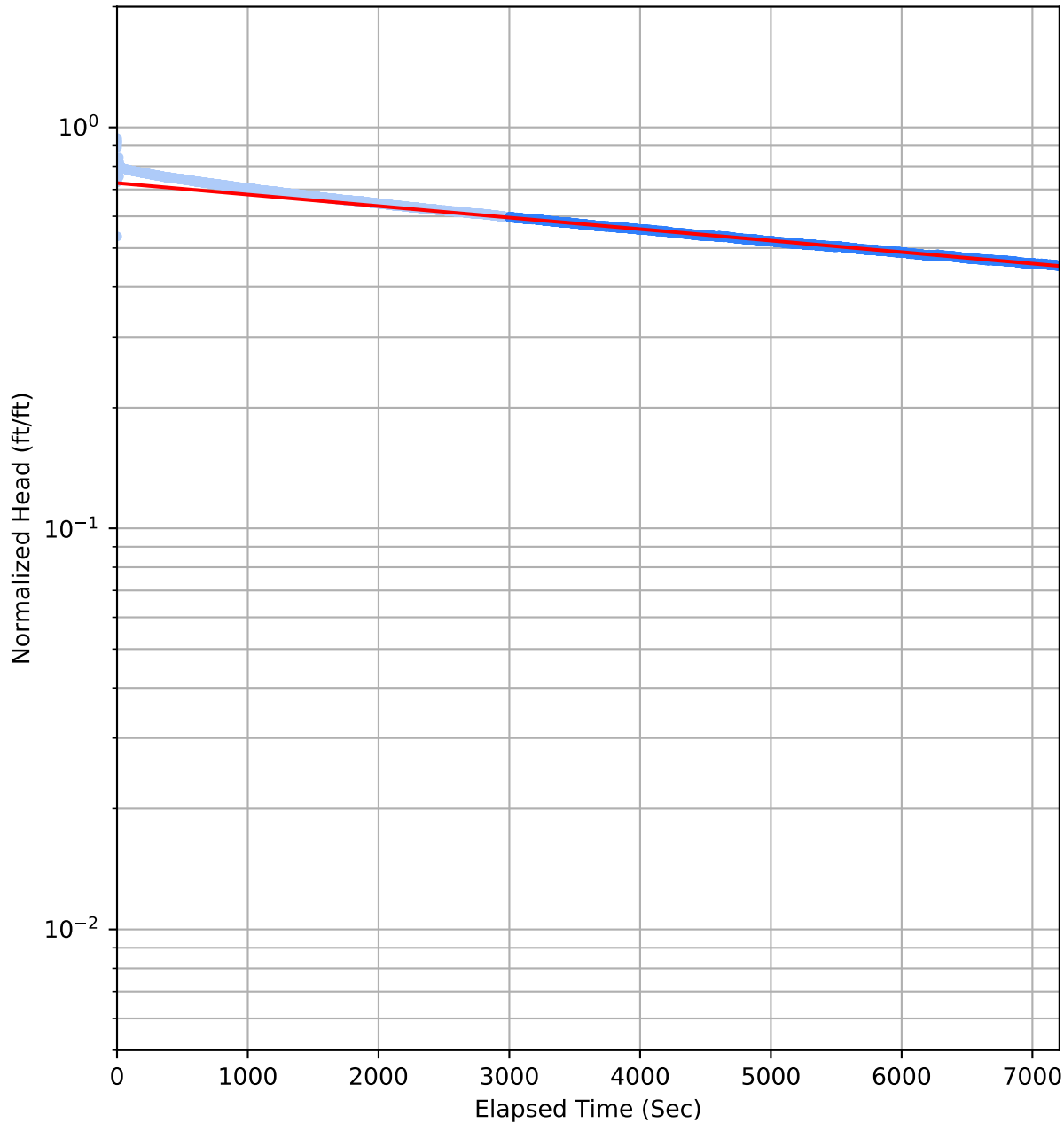
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 02-14-2018

Falling Head Test 1 at BEC-10



Analysis Results

Hydraulic Conductivity (ft/day)	0.018
Standard Error of K (ft/day)	4.3e-06

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	131.57
Static Water Column Height (ft)	31.57
Initial Displacement (ft)	1.97
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	15.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	56.43
Screen Interval (ft bgs)	73.0 - 88.0
Screened Across Water Table?	No
Screened Unit	MCF

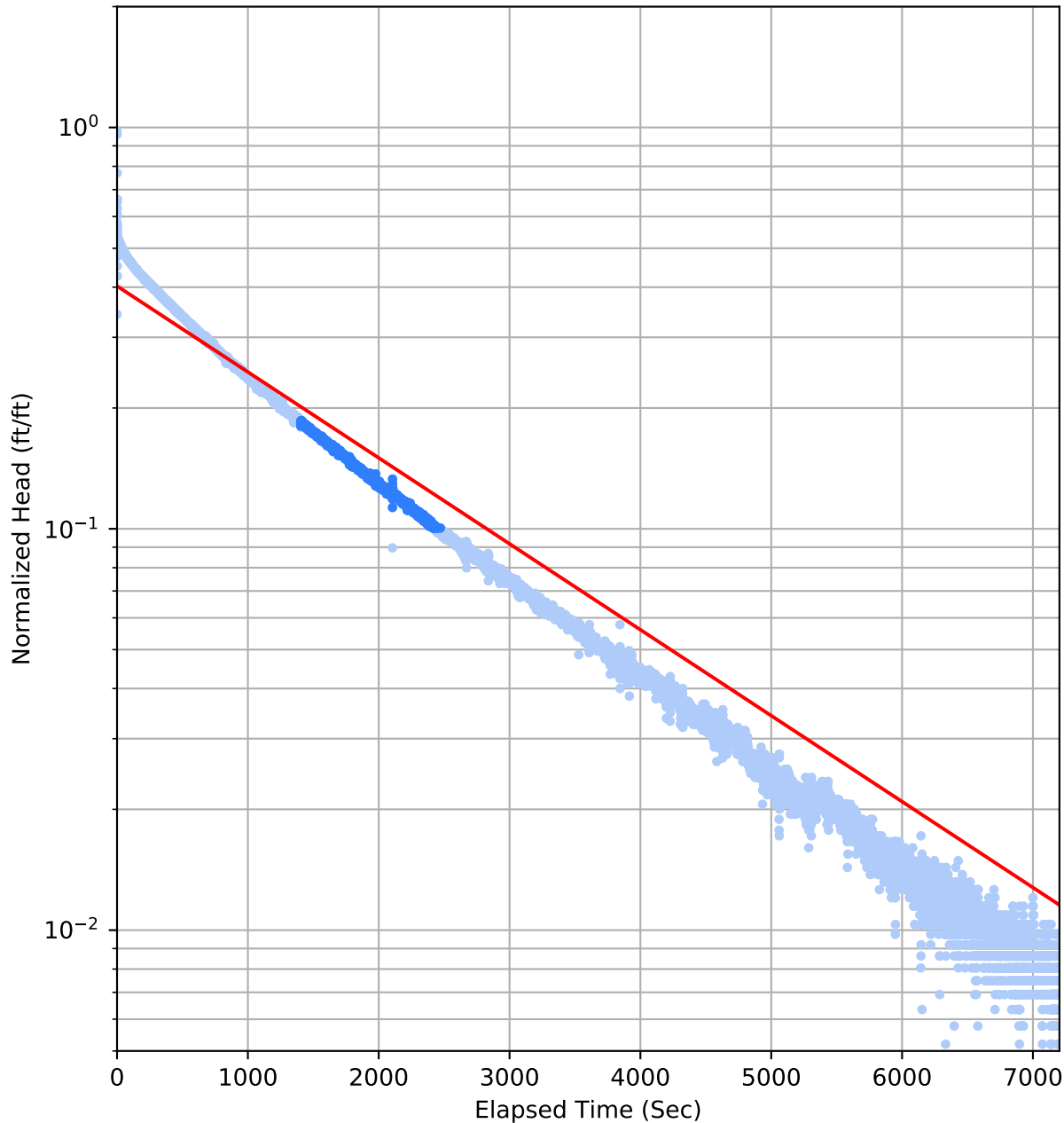
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Water levels did not recover to the recommended normalized head range.
Fit in normalized head range 0.40 to 0.60

Test date: 02-20-2018

Falling Head Test 1 at DBMW-3



Analysis Results

Hydraulic Conductivity (ft/day)	0.23
Standard Error of K (ft/day)	0.00015

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	111.59
Static Water Column Height (ft)	11.59
Initial Displacement (ft)	1.75
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	11.59
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	27.41
Screen Interval (ft bgs)	19.0 - 39.0
Screened Across Water Table?	Yes
Screened Unit	CROSS

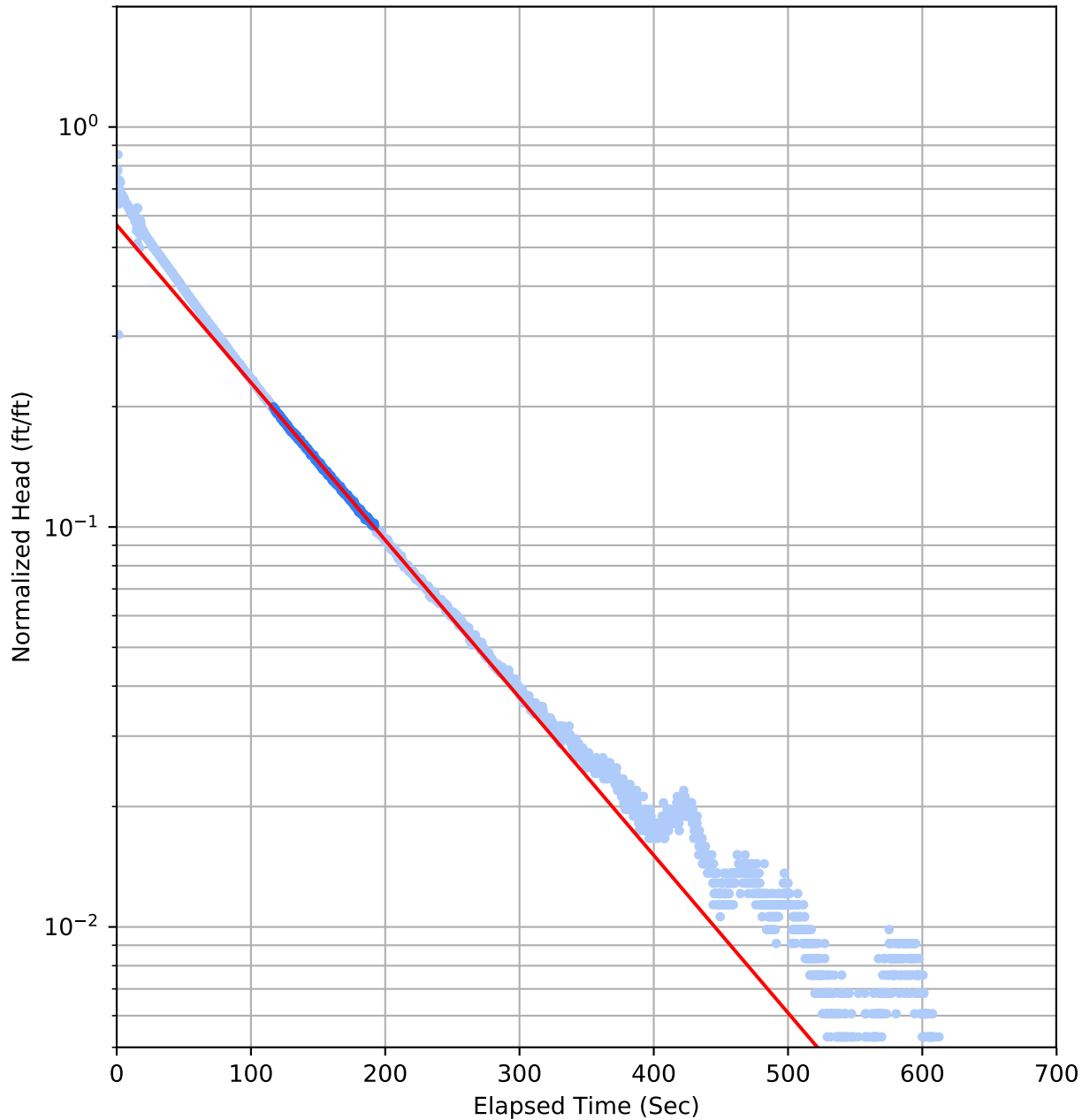
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 02-19-2018

Falling Head Test 1 at DBMW-4



Analysis Results

Hydraulic Conductivity (ft/day)	6.6
Standard Error of K (ft/day)	0.011

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	104.51
Static Water Column Height (ft)	4.51
Initial Displacement (ft)	1.32
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	4.51
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	25.49
Screen Interval (ft bgs)	10.0 - 30.0
Screened Across Water Table?	Yes
Screened Unit	CROSS

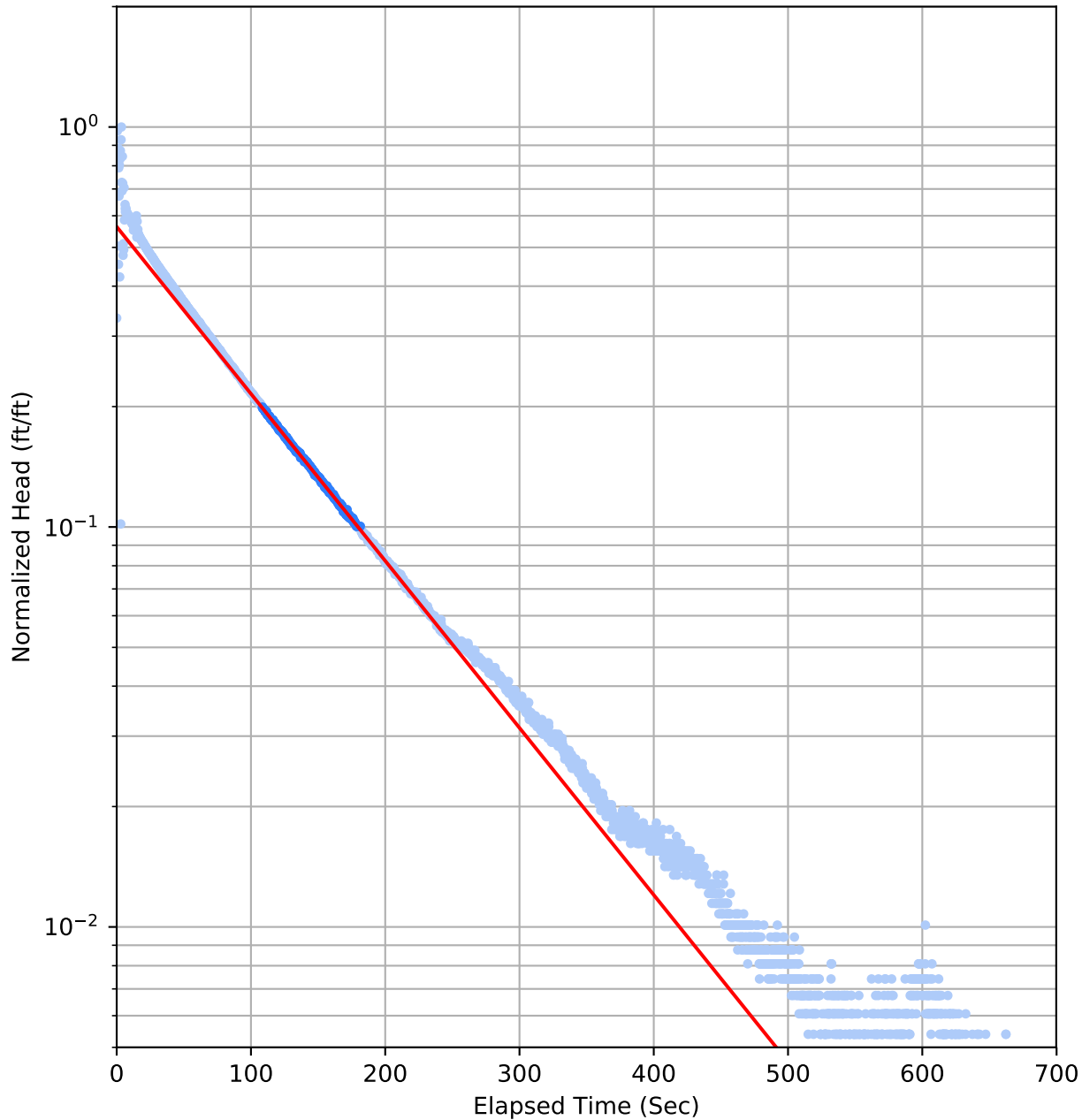
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 02-16-2018

Falling Head Test 2 at DBMW-4



Analysis Results

Hydraulic Conductivity (ft/day)	7
Standard Error of K (ft/day)	0.011

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	104.51
Static Water Column Height (ft)	4.51
Initial Displacement (ft)	1.48
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	4.51
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	25.49
Screen Interval (ft bgs)	10.0 - 30.0
Screened Across Water Table?	Yes
Screened Unit	CROSS

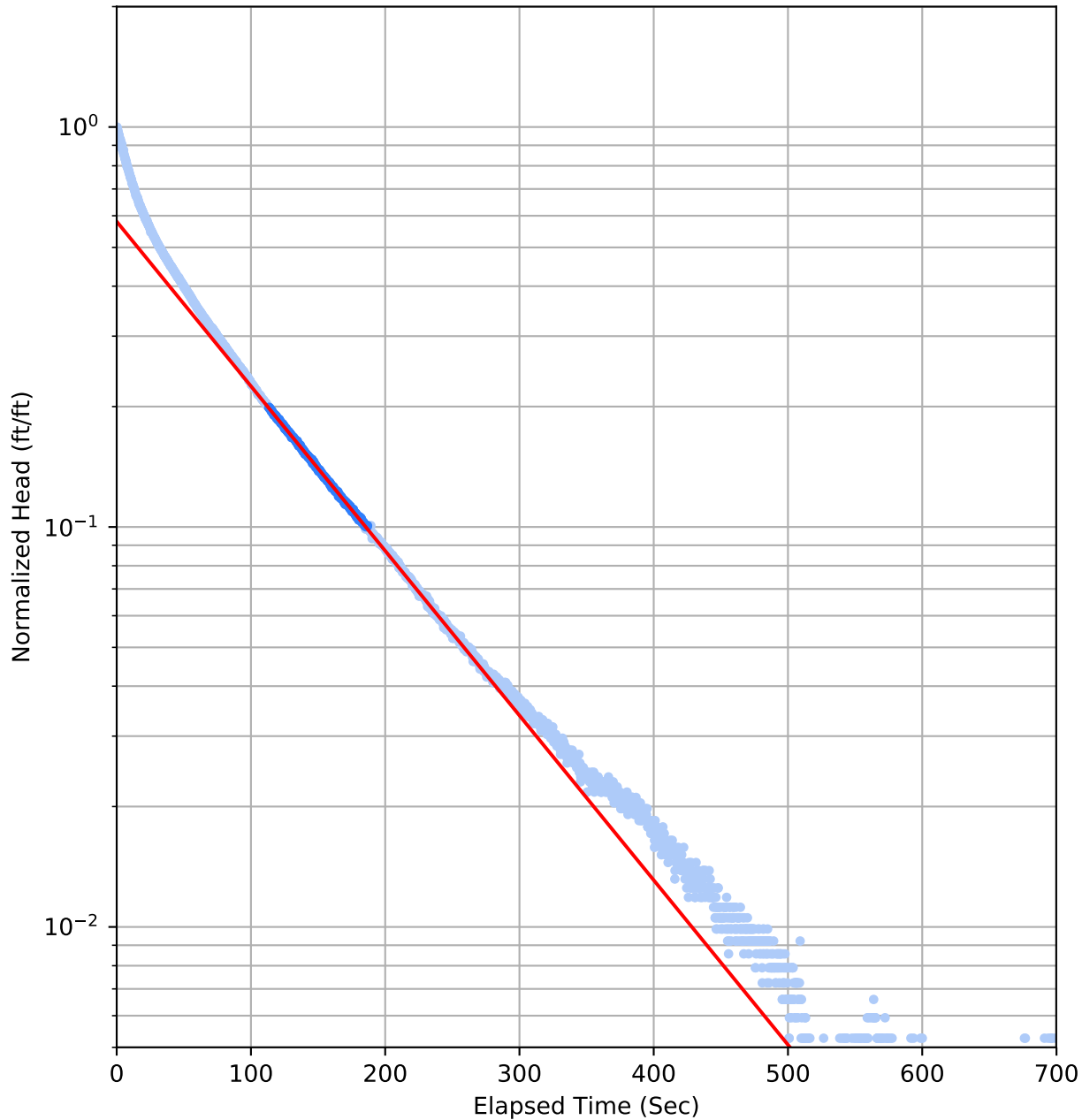
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 02-16-2018

Rising Head Test 1 at DBMW-4



Analysis Results

Hydraulic Conductivity (ft/day)	6.9
Standard Error of K (ft/day)	0.012

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	104.51
Static Water Column Height (ft)	4.51
Initial Displacement (ft)	1.52
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	4.51
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	25.49
Screen Interval (ft bgs)	10.0 - 30.0
Screened Across Water Table?	Yes
Screened Unit	CROSS

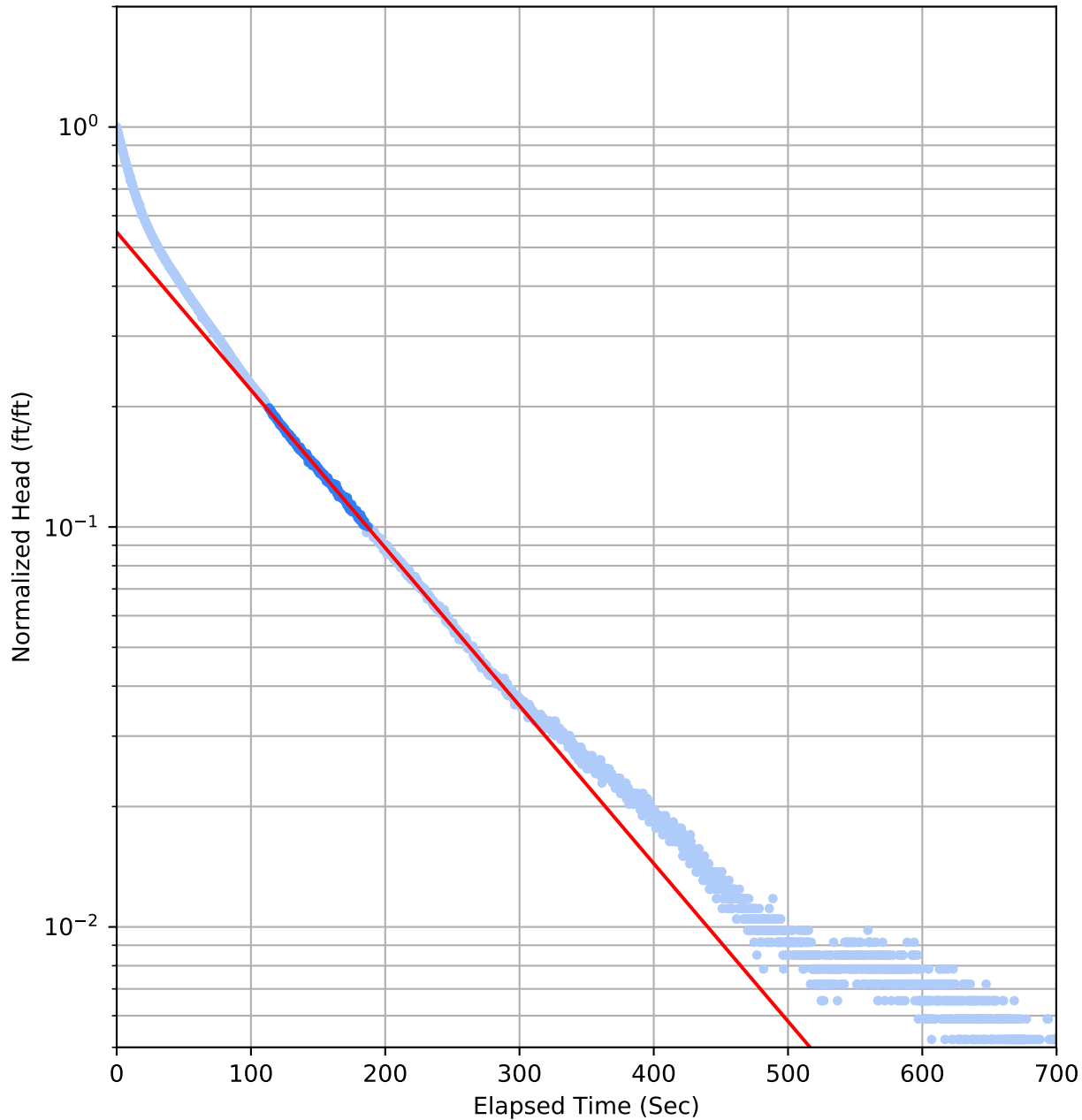
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 02-16-2018

Rising Head Test 2 at DBMW-4



Analysis Results

Hydraulic Conductivity (ft/day)	6.6
Standard Error of K (ft/day)	0.018

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	104.51
Static Water Column Height (ft)	4.51
Initial Displacement (ft)	1.53
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	4.51
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	25.49
Screen Interval (ft bgs)	10.0 - 30.0
Screened Across Water Table?	Yes
Screened Unit	CROSS

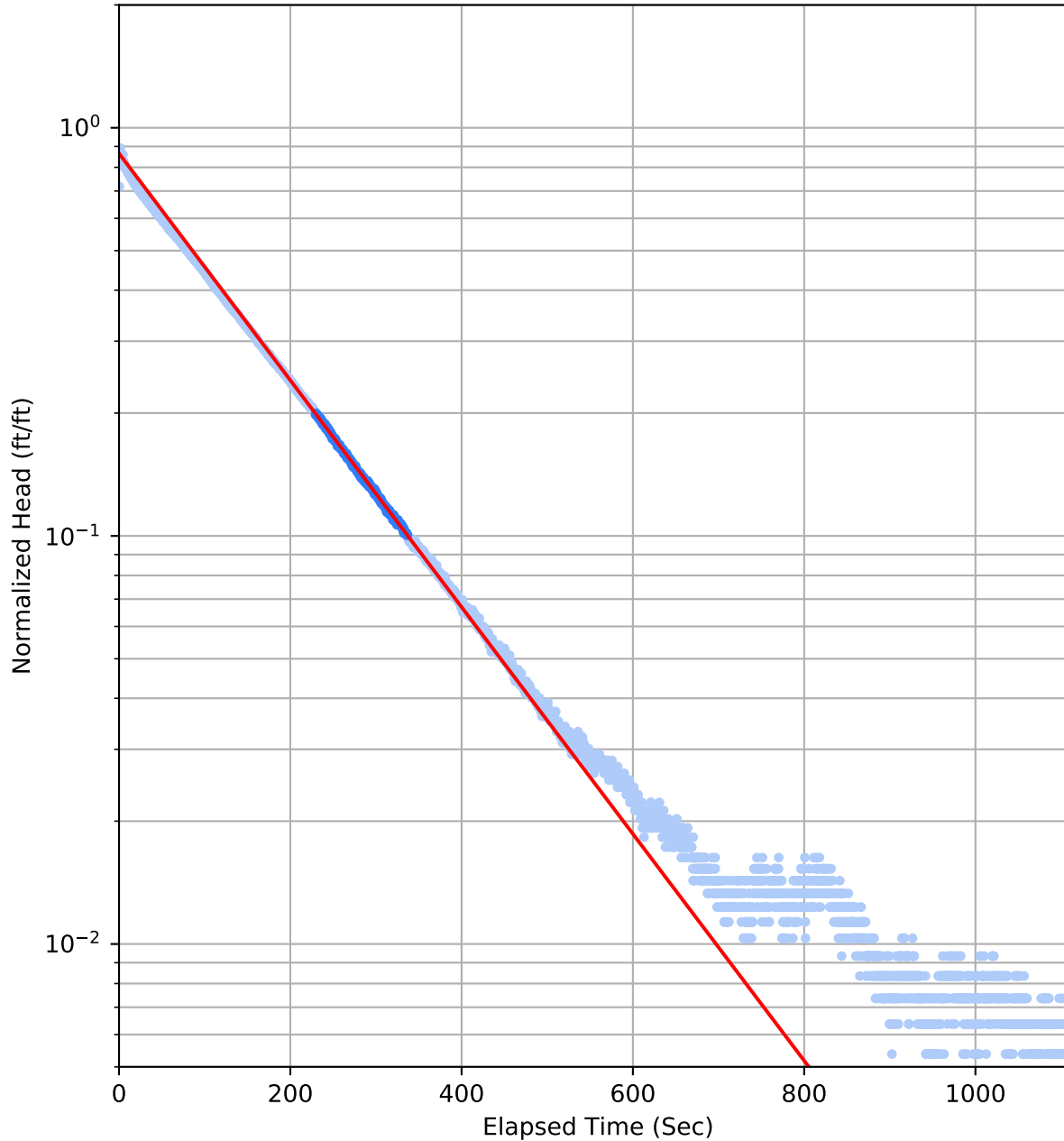
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 02-16-2018

Falling Head Test 1 at DBMW-7



Analysis Results

Hydraulic Conductivity (ft/day)	2.8
Standard Error of K (ft/day)	0.0049

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	112.22
Static Water Column Height (ft)	12.22
Initial Displacement (ft)	1.01
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	12.22
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	57.78
Screen Interval (ft bgs)	50.0 - 70.0
Screened Across Water Table?	Yes
Screened Unit	MCF

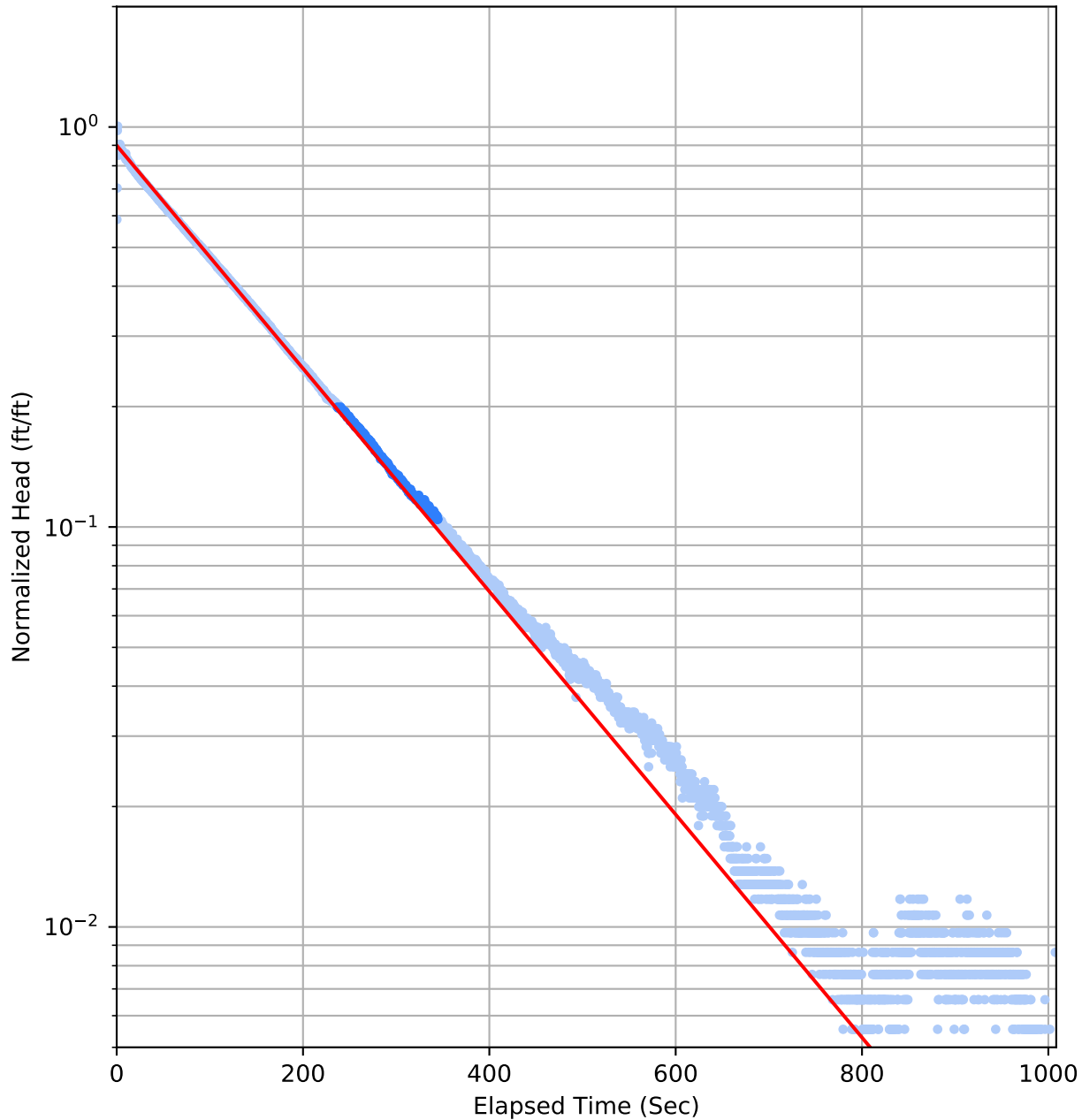
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 02-15-2018

Falling Head Test 2 at DBMW-7



Analysis Results

Hydraulic Conductivity (ft/day)	2.8
Standard Error of K (ft/day)	0.0077

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	112.22
Static Water Column Height (ft)	12.22
Initial Displacement (ft)	0.97
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	12.22
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	57.78
Screen Interval (ft bgs)	50.0 - 70.0
Screened Across Water Table?	Yes
Screened Unit	MCF

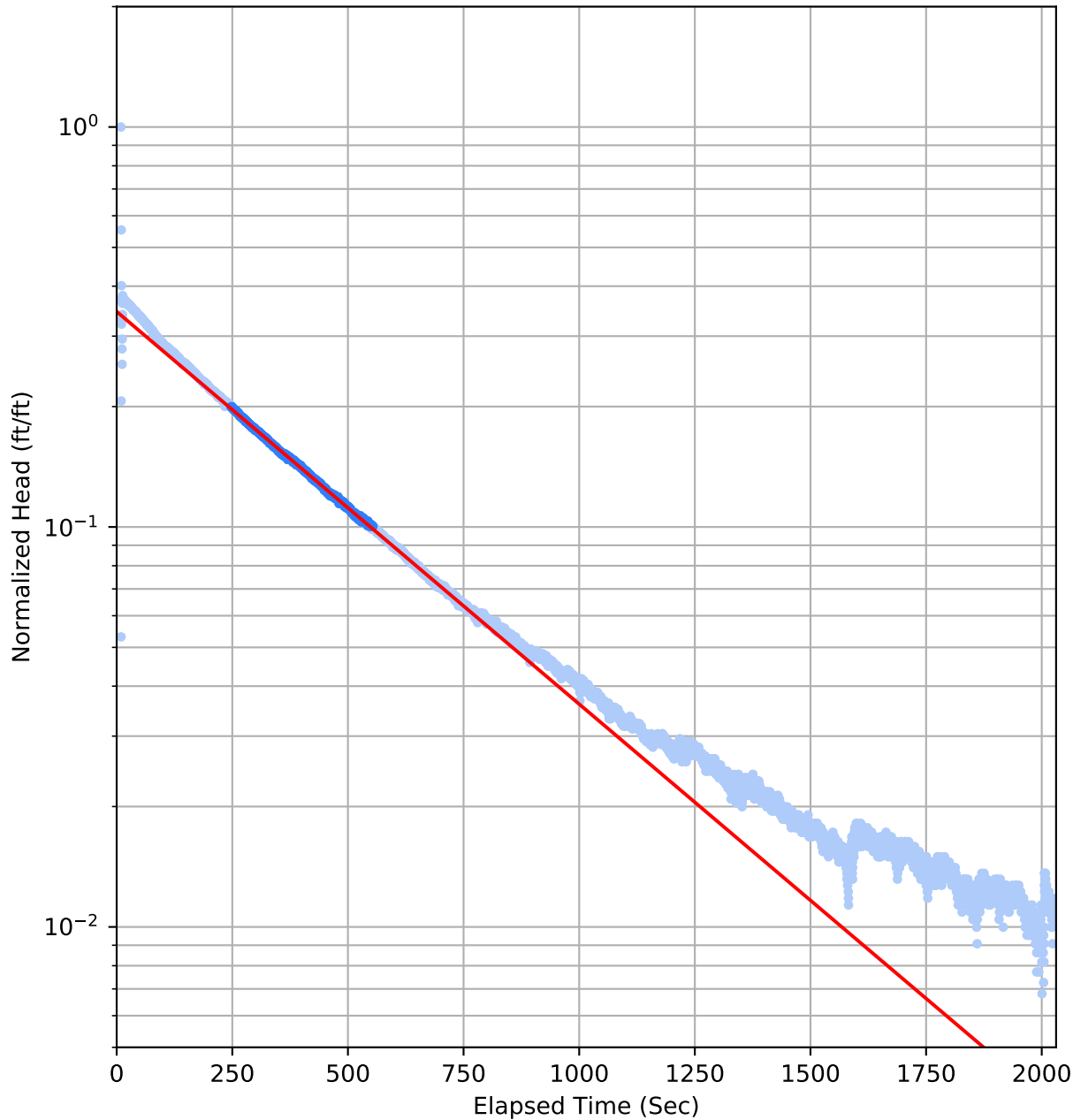
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 02-15-2018

Falling Head Test 2 at DBMW-8



Analysis Results

Hydraulic Conductivity (ft/day)	1
Standard Error of K (ft/day)	0.00092

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	110.97
Static Water Column Height (ft)	10.97
Initial Displacement (ft)	2.20
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.97
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	56.53
Screen Interval (ft bgs)	47.5 - 67.5
Screened Across Water Table?	Yes
Screened Unit	MCF

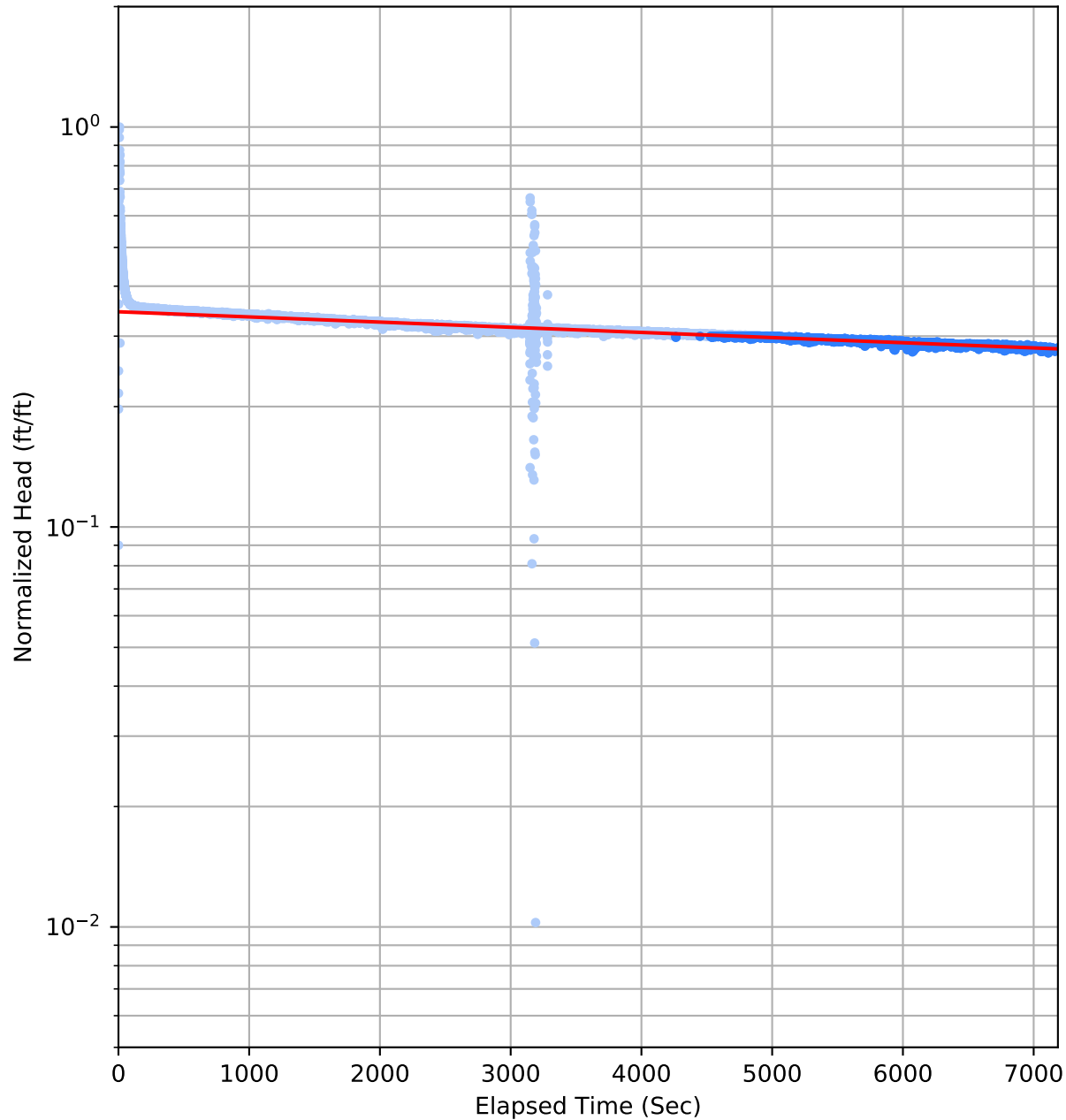
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 02-15-2018

Falling Head Test 1 at DBMW-13



Analysis Results

Hydraulic Conductivity (ft/day)	0.0085
Standard Error of K (ft/day)	2e-05

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	130.36
Static Water Column Height (ft)	30.36
Initial Displacement (ft)	1.75
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	30.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	44.64
Screen Interval (ft bgs)	45.0 - 75.0
Screened Across Water Table?	No
Screened Unit	MCF

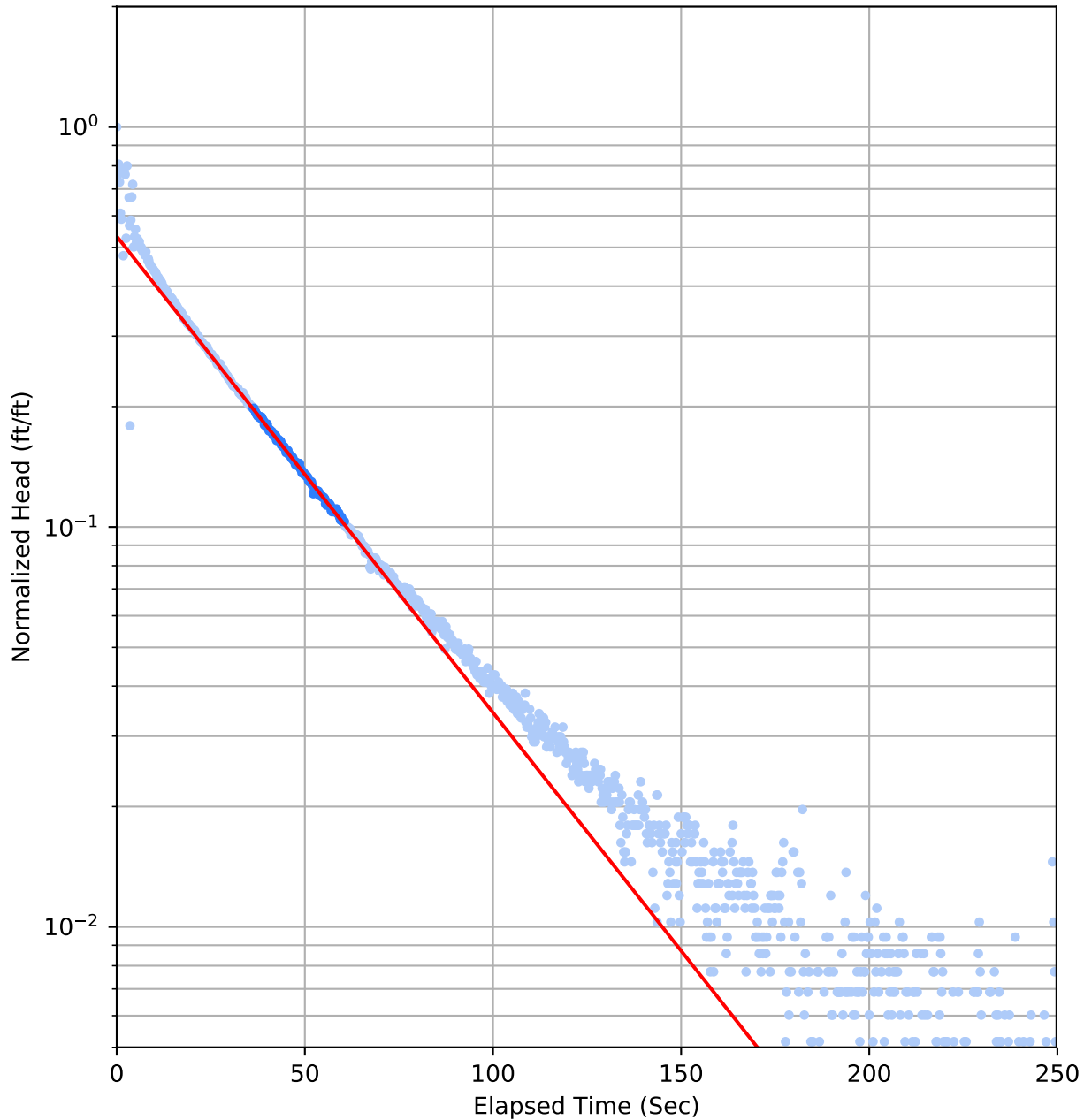
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.20 to 0.30

Test date: 02-19-2018

Falling Head Test 1 at DBMW-17



Analysis Results

Hydraulic Conductivity (ft/day)	16
Standard Error of K (ft/day)	0.092

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	106.81
Static Water Column Height (ft)	6.81
Initial Displacement (ft)	1.17
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	6.81
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	65.19
Screen Interval (ft bgs)	52.0 - 72.0
Screened Across Water Table?	Yes
Screened Unit	CROSS

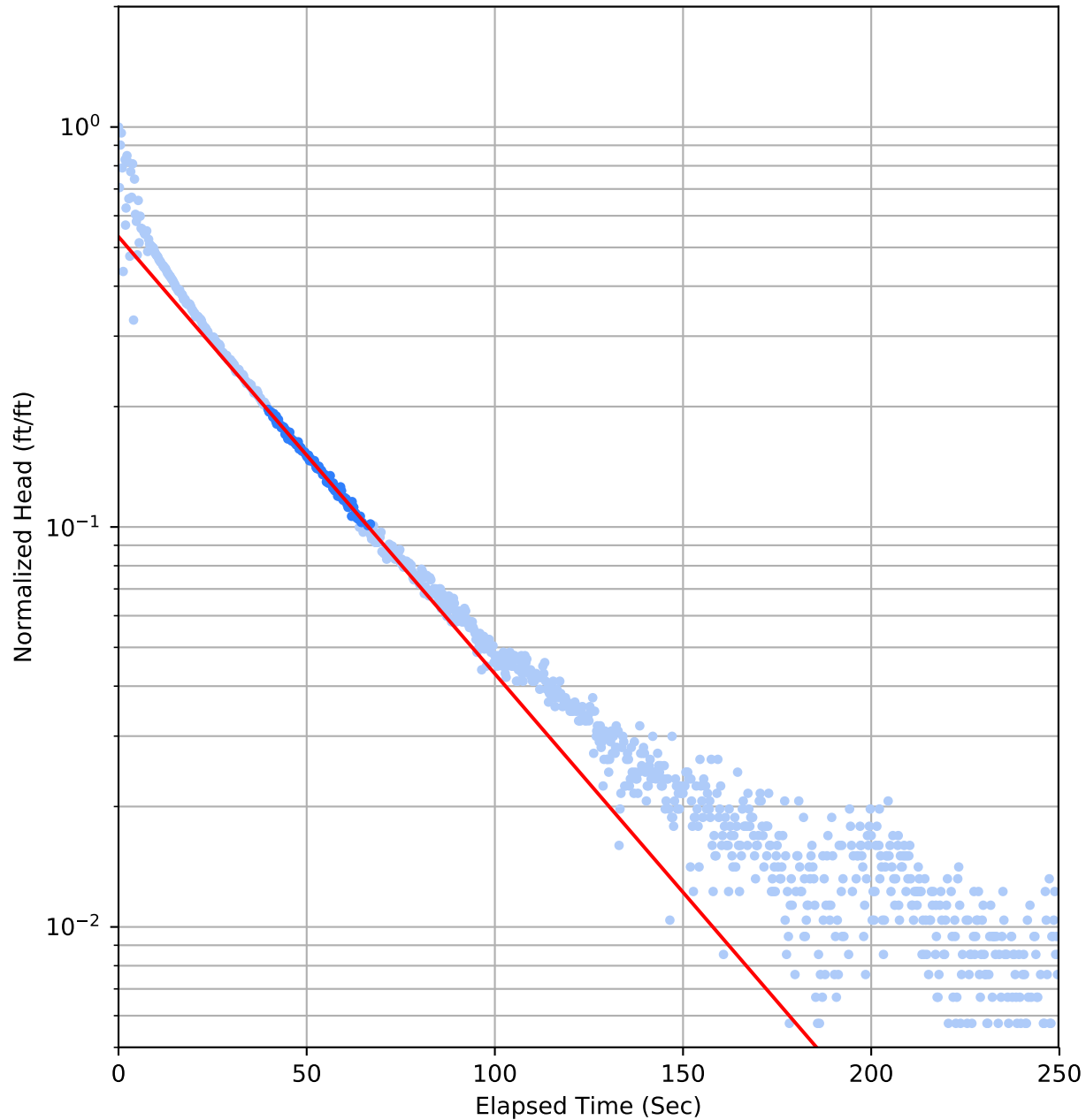
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 02-19-2018

Falling Head Test 2 at DBMW-17



Analysis Results

Hydraulic Conductivity (ft/day)	15
Standard Error of K (ft/day)	0.12

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	106.81
Static Water Column Height (ft)	6.81
Initial Displacement (ft)	1.07
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	6.81
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	65.19
Screen Interval (ft bgs)	52.0 - 72.0
Screened Across Water Table?	Yes
Screened Unit	CROSS

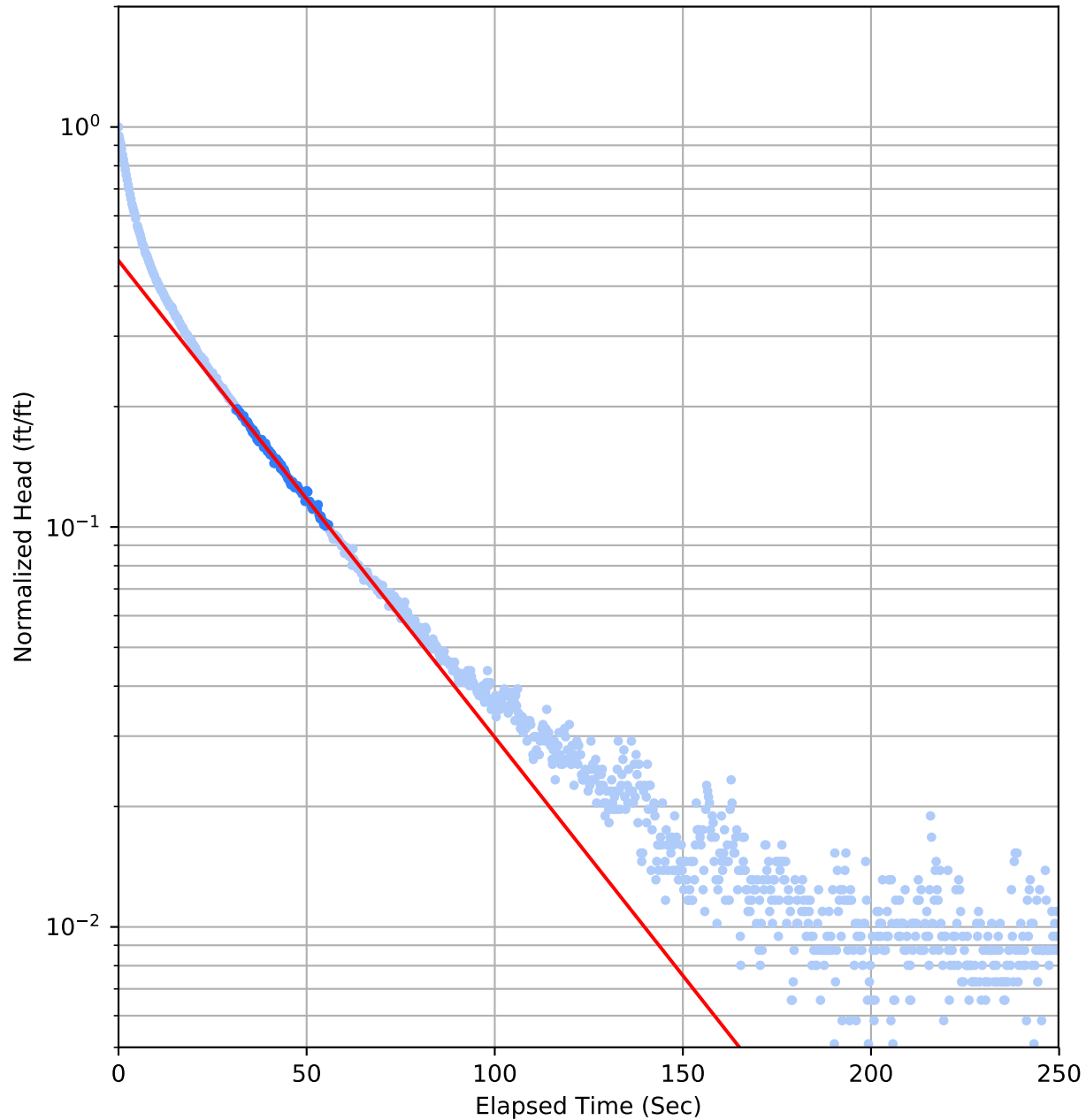
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 02-19-2018

Rising Head Test 1 at DBMW-17



Analysis Results

Hydraulic Conductivity (ft/day)	16
Standard Error of K (ft/day)	0.13

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	106.81
Static Water Column Height (ft)	6.81
Initial Displacement (ft)	1.37
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	6.81
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	65.19
Screen Interval (ft bgs)	52.0 - 72.0
Screened Across Water Table?	Yes
Screened Unit	CROSS

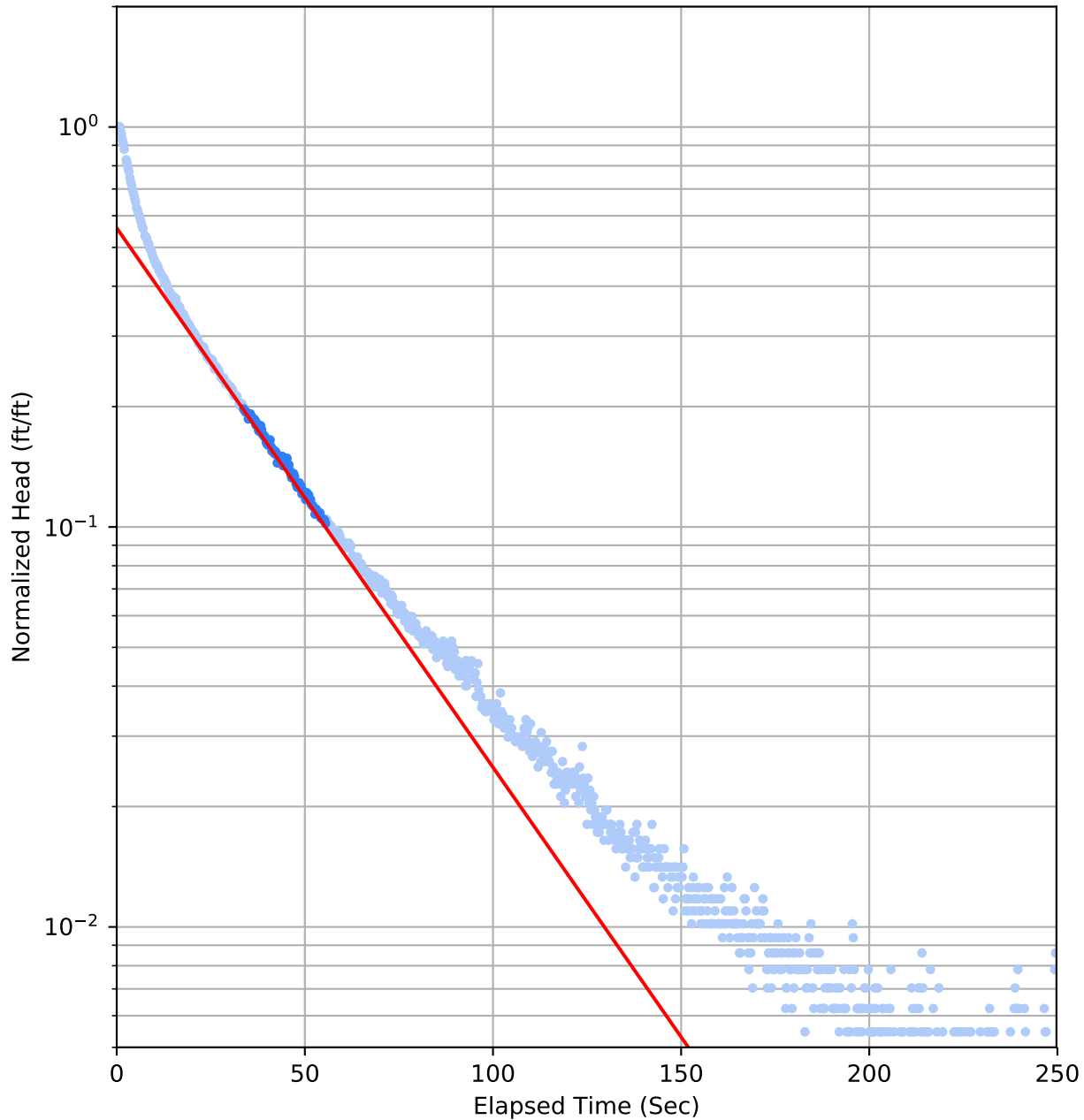
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 02-19-2018

Rising Head Test 2 at DBMW-17



Analysis Results

Hydraulic Conductivity (ft/day)	18
Standard Error of K (ft/day)	0.16

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	106.81
Static Water Column Height (ft)	6.81
Initial Displacement (ft)	1.27
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	6.81
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	65.19
Screen Interval (ft bgs)	52.0 - 72.0
Screened Across Water Table?	Yes
Screened Unit	CROSS

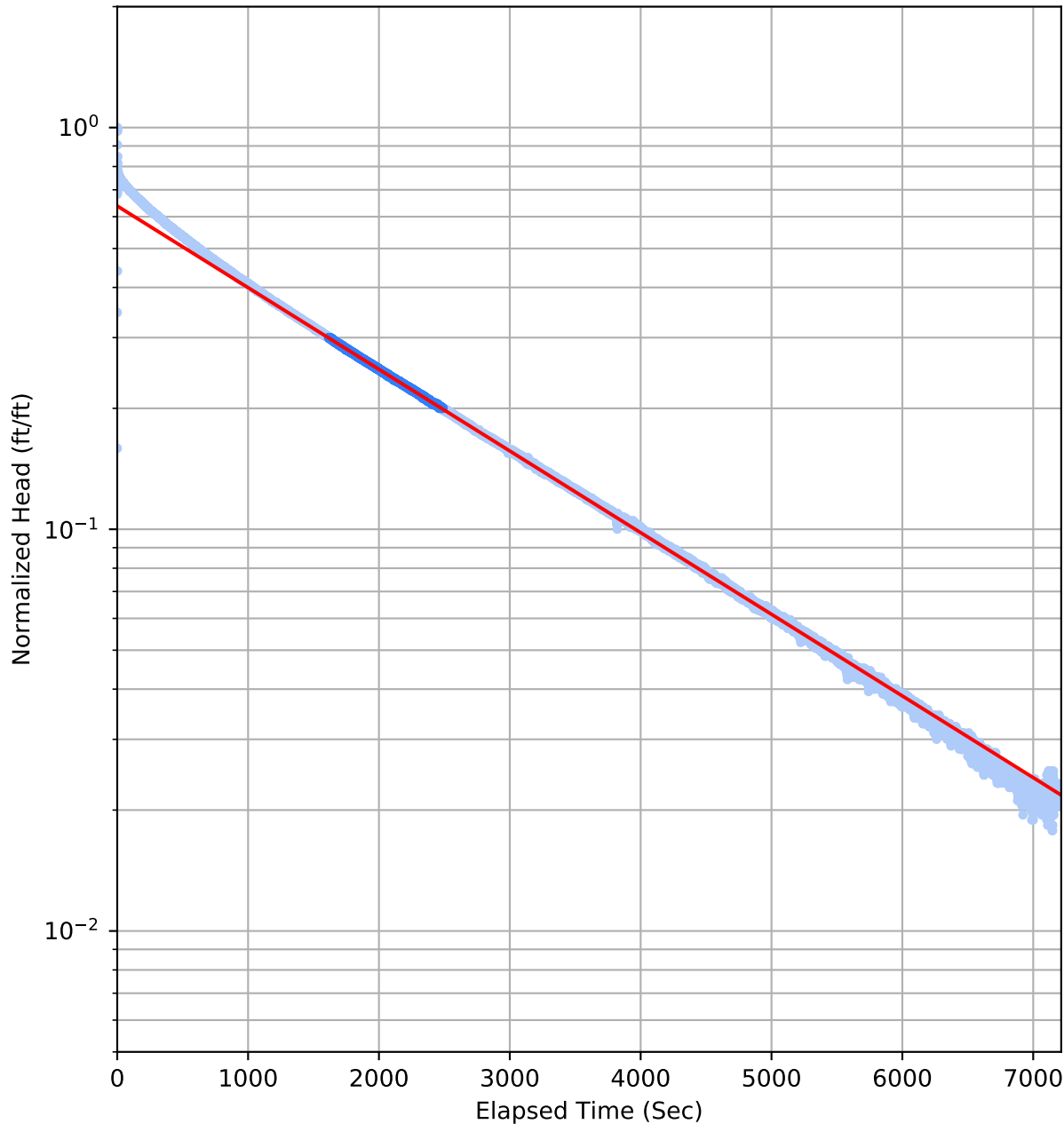
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 02-19-2018

Falling Head Test 1 at ES-1



Analysis Results

Hydraulic Conductivity (ft/day)	0.13
Standard Error of K (ft/day)	5.3e-05

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	163.20
Static Water Column Height (ft)	63.20
Initial Displacement (ft)	1.80
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	15.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	46.80
Screen Interval (ft bgs)	95.0 - 110.0
Screened Across Water Table?	No
Screened Unit	MCF

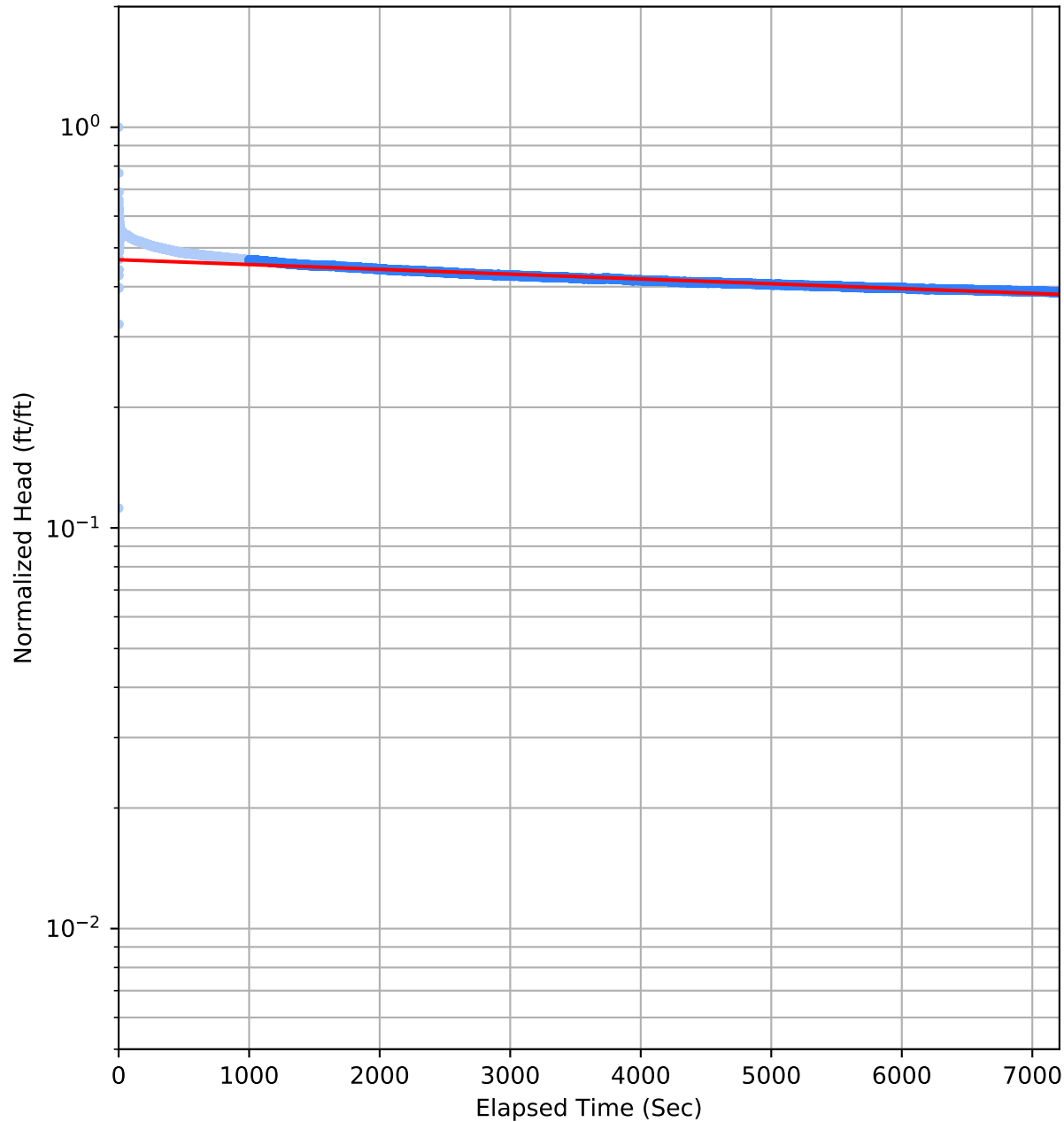
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 02-16-2018

Falling Head Test 1 at ES-10



Analysis Results

Hydraulic Conductivity (ft/day)	0.006
Standard Error of K (ft/day)	6e-06

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	129.70
Static Water Column Height (ft)	29.70
Initial Displacement (ft)	2.65
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	35.30
Screen Interval (ft bgs)	45.0 - 65.0
Screened Across Water Table?	No
Screened Unit	MCF

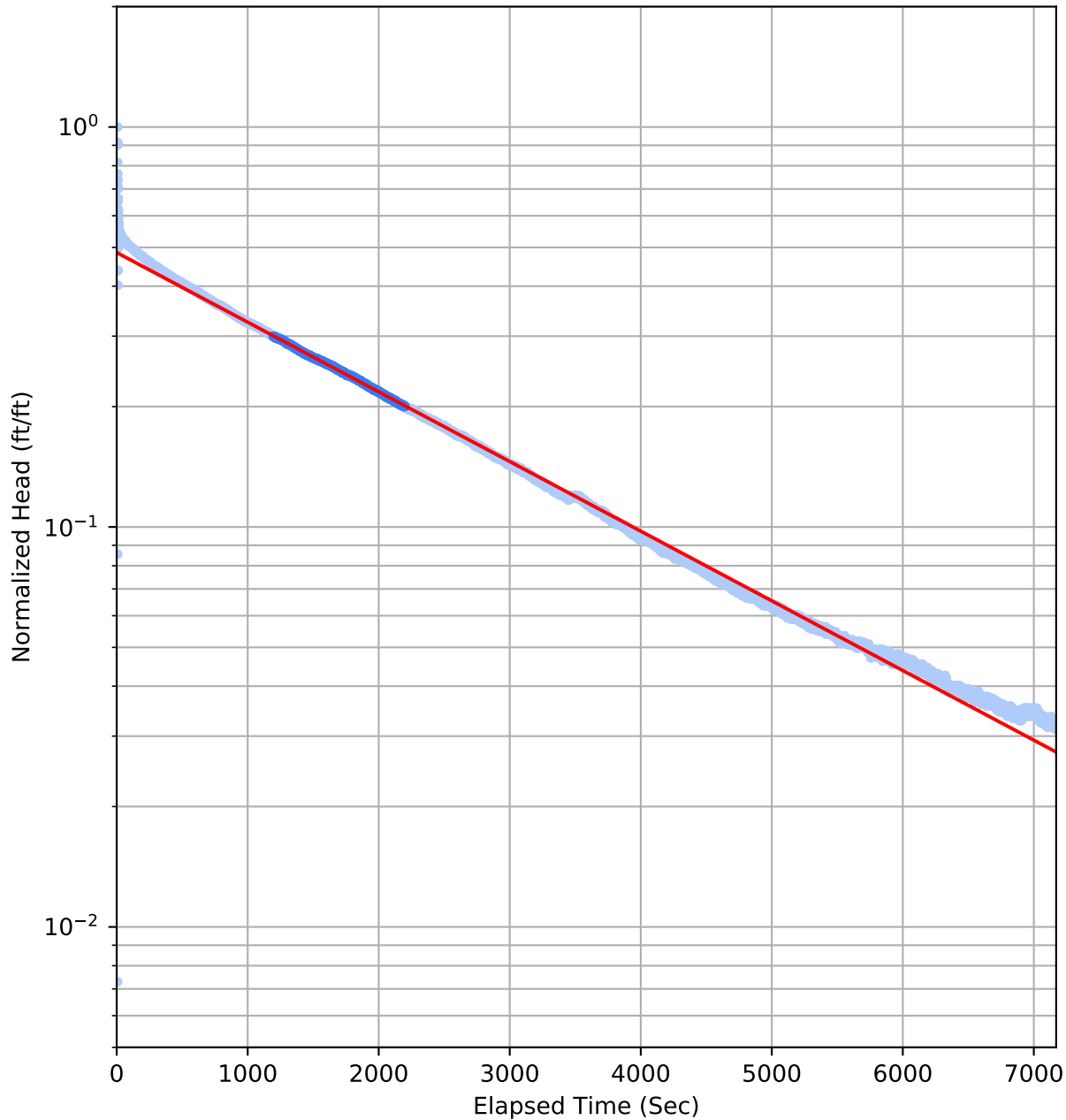
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Water levels did not recover to the recommended normalized head range.
Fit in normalized head range 0.00 to 1.00

Test date: 04-13-2018

Falling Head Test 1 at ES-11



Analysis Results

Hydraulic Conductivity (ft/day)	0.084
Standard Error of K (ft/day)	4.4e-05

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	125.20
Static Water Column Height (ft)	25.20
Initial Displacement (ft)	2.47
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	29.80
Screen Interval (ft bgs)	35.0 - 55.0
Screened Across Water Table?	No
Screened Unit	MCF

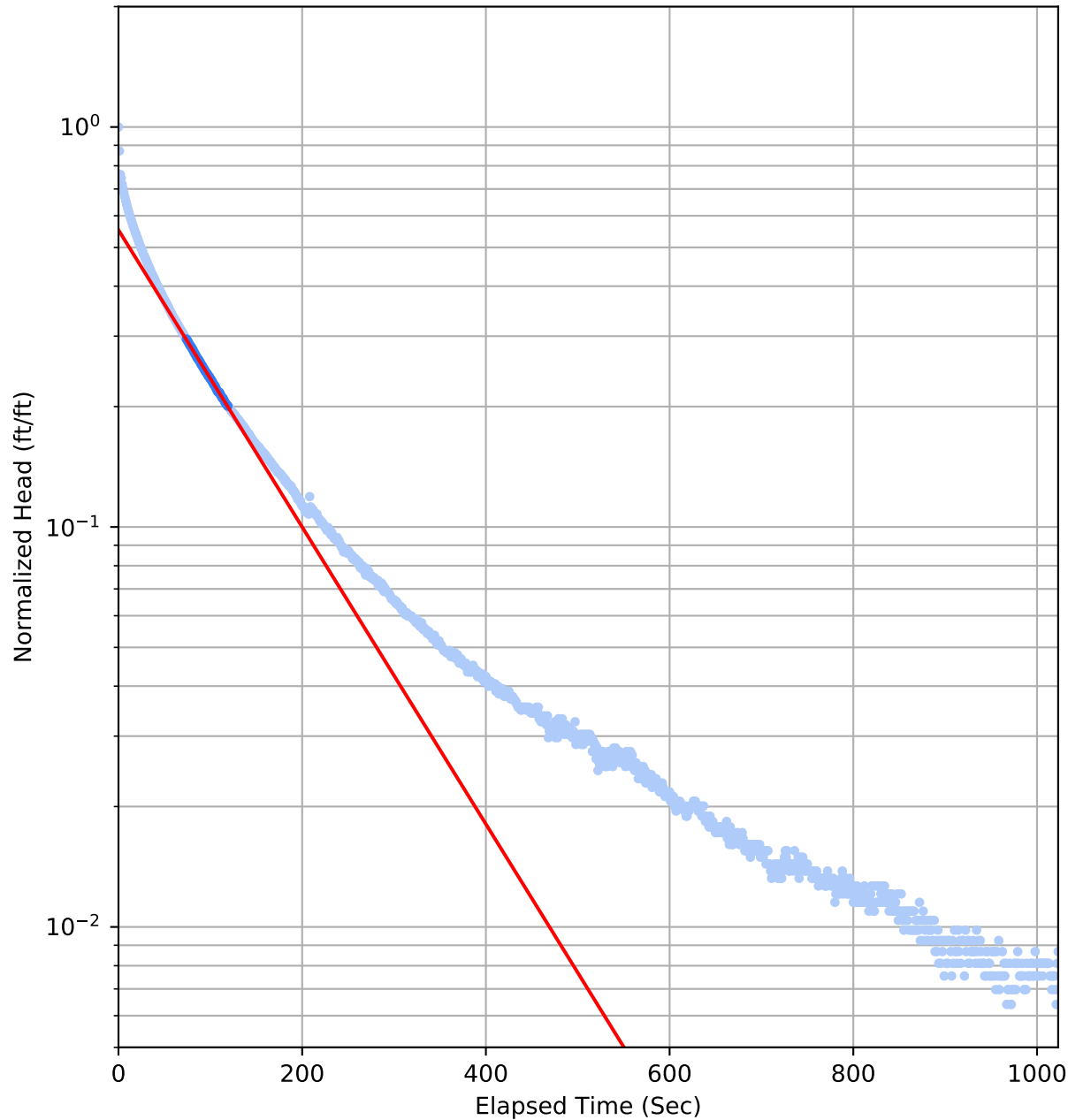
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 04-13-2018

Falling Head Test 1 at ES-12



Analysis Results

Hydraulic Conductivity (ft/day)	1.9
Standard Error of K (ft/day)	0.008

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	135.20
Static Water Column Height (ft)	35.20
Initial Displacement (ft)	1.76
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	29.80
Screen Interval (ft bgs)	45.0 - 65.0
Screened Across Water Table?	No
Screened Unit	MCF

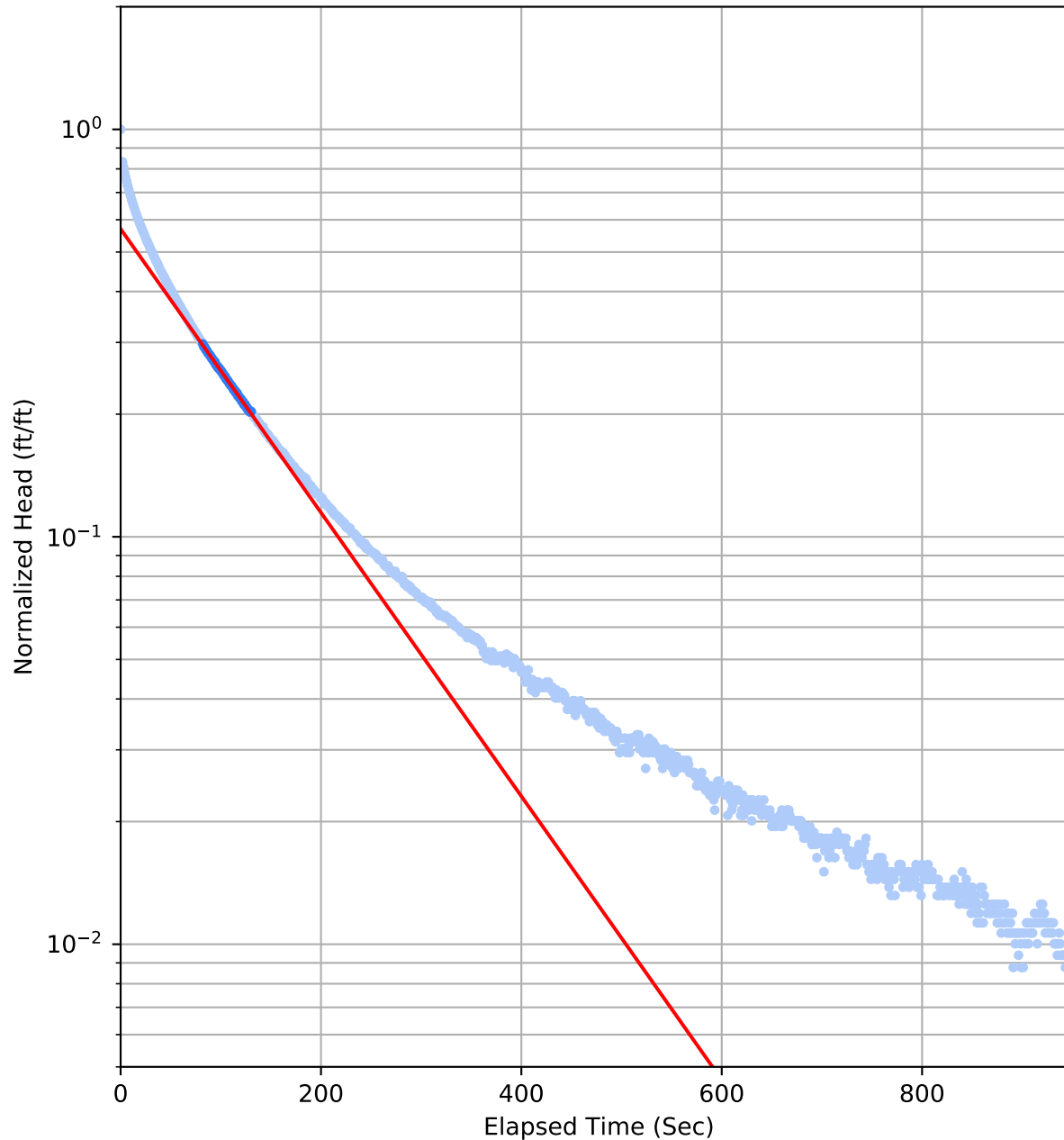
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 02-15-2018

Falling Head Test 2 at ES-12



Analysis Results

Hydraulic Conductivity (ft/day)	1.8
Standard Error of K (ft/day)	0.0079

Aquifer and Well Construction Parameters

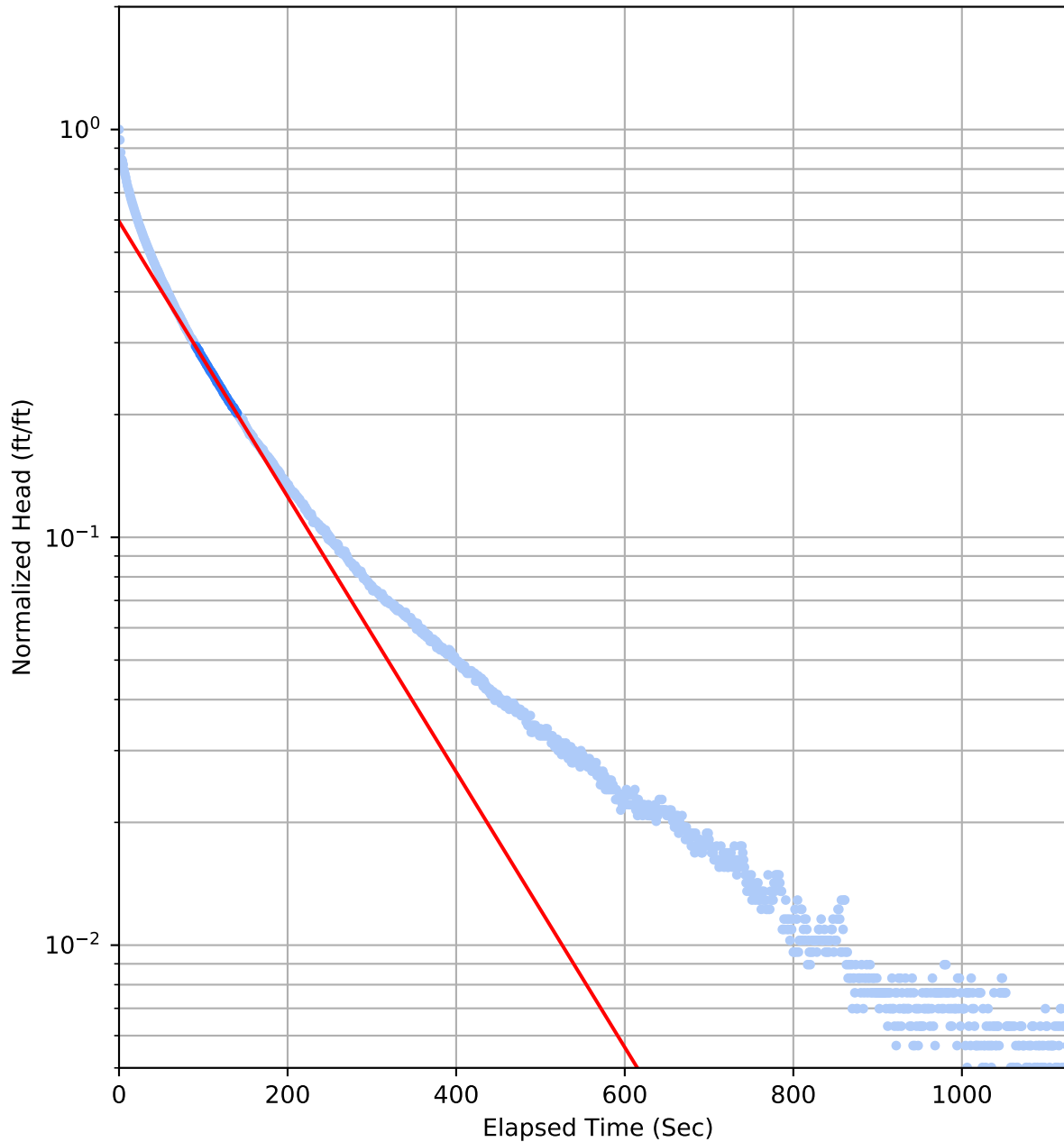
Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	135.20
Static Water Column Height (ft)	35.20
Initial Displacement (ft)	1.59
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	29.80
Screen Interval (ft bgs)	45.0 - 65.0
Screened Across Water Table?	No
Screened Unit	MCF

Notes:
 Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 02-15-2018

Rising Head Test 1 at ES-12



Analysis Results

Hydraulic Conductivity (ft/day)	1.7
Standard Error of K (ft/day)	0.0058

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	135.20
Static Water Column Height (ft)	35.20
Initial Displacement (ft)	1.52
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	29.80
Screen Interval (ft bgs)	45.0 - 65.0
Screened Across Water Table?	No
Screened Unit	MCF

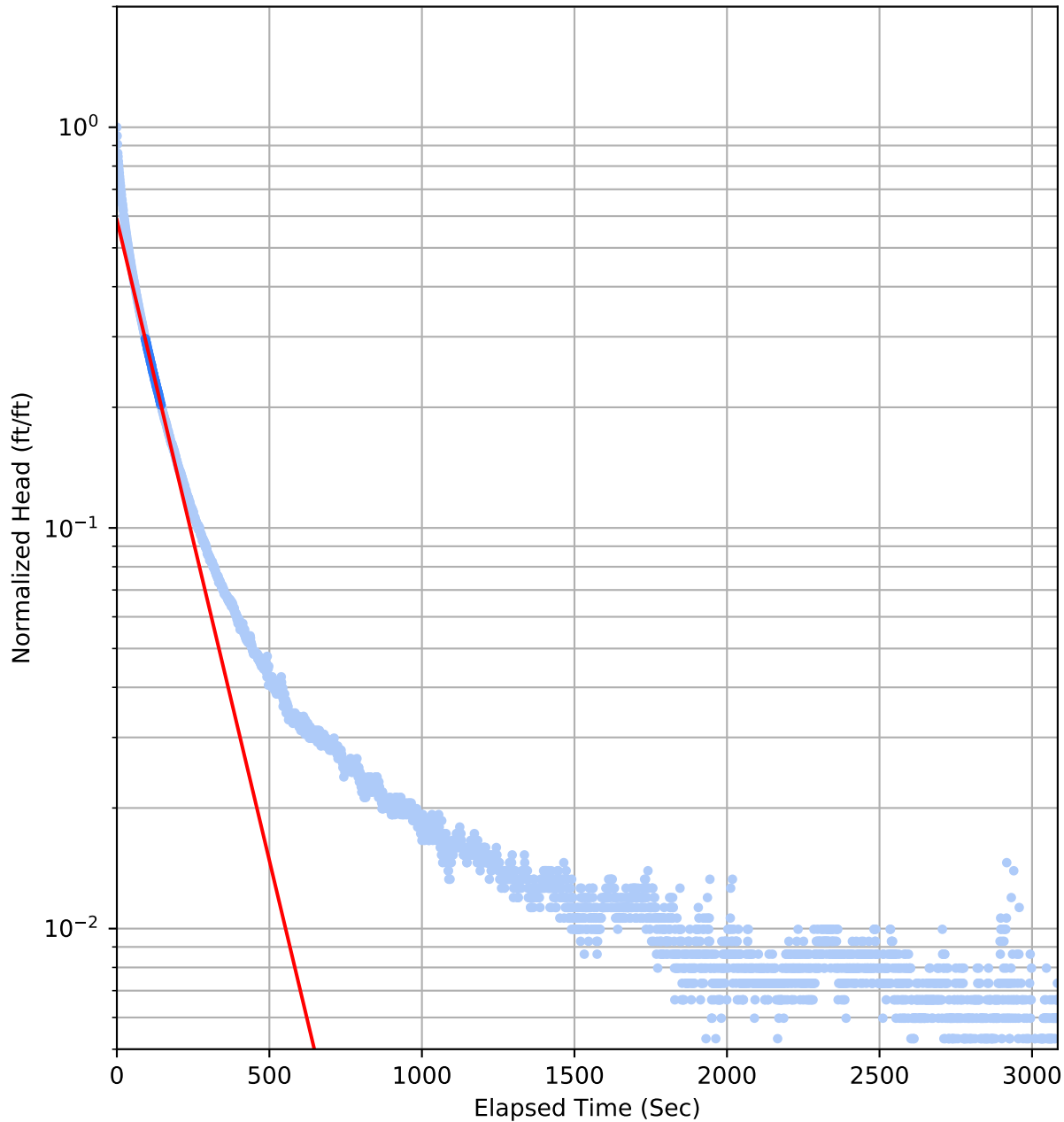
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 02-15-2018

Rising Head Test 2 at ES-12



Analysis Results

Hydraulic Conductivity (ft/day)	1.6
Standard Error of K (ft/day)	0.0058

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	135.20
Static Water Column Height (ft)	35.20
Initial Displacement (ft)	1.51
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	29.80
Screen Interval (ft bgs)	45.0 - 65.0
Screened Across Water Table?	No
Screened Unit	MCF

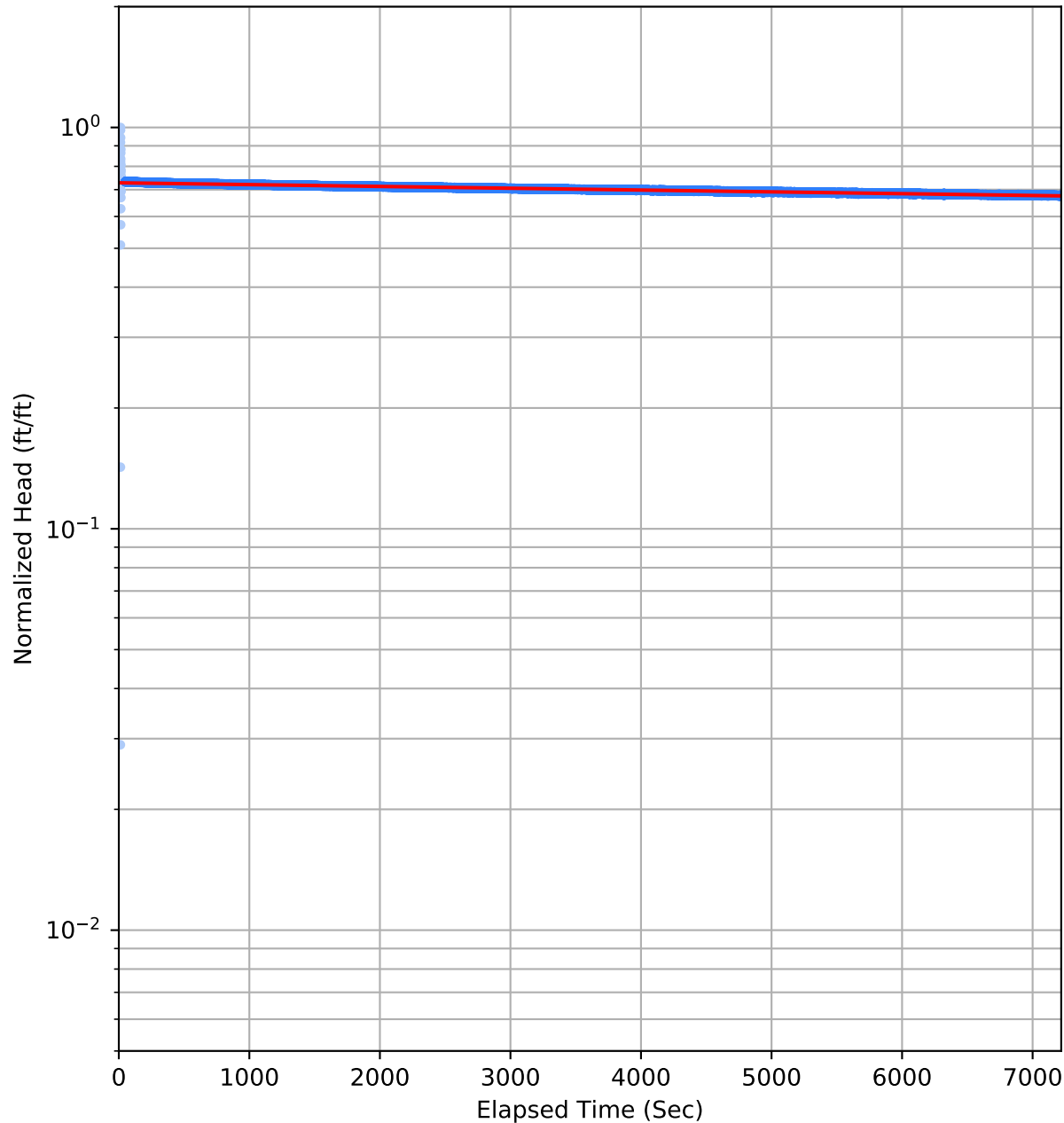
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 02-15-2018

Falling Head Test 1 at ES-13



Analysis Results

Hydraulic Conductivity (ft/day)	0.0029
Standard Error of K (ft/day)	1.3e-06

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	144.69
Static Water Column Height (ft)	44.69
Initial Displacement (ft)	2.11
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	15.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	60.31
Screen Interval (ft bgs)	90.0 - 105.0
Screened Across Water Table?	No
Screened Unit	MCF

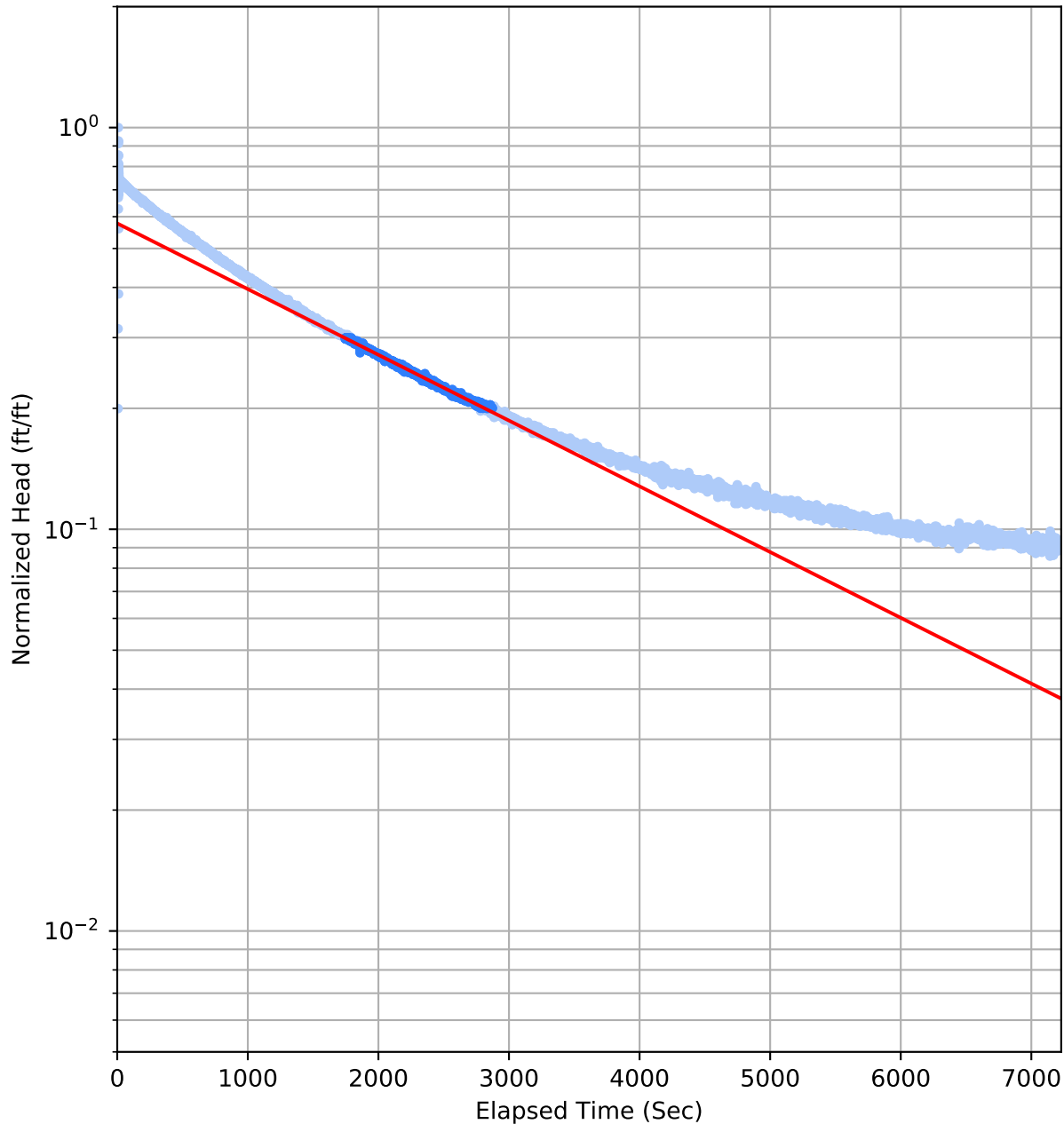
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Water levels did not recover to the recommended normalized head range.
Fit in normalized head range 0.00 to 1.00

Test date: 04-13-2018

Falling Head Test 1 at ES-19



Analysis Results

Hydraulic Conductivity (ft/day)	0.087
Standard Error of K (ft/day)	7.1e-05

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	211.62
Static Water Column Height (ft)	111.62
Initial Displacement (ft)	2.12
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	65.38
Screen Interval (ft bgs)	157.0 - 177.0
Screened Across Water Table?	No
Screened Unit	MCF

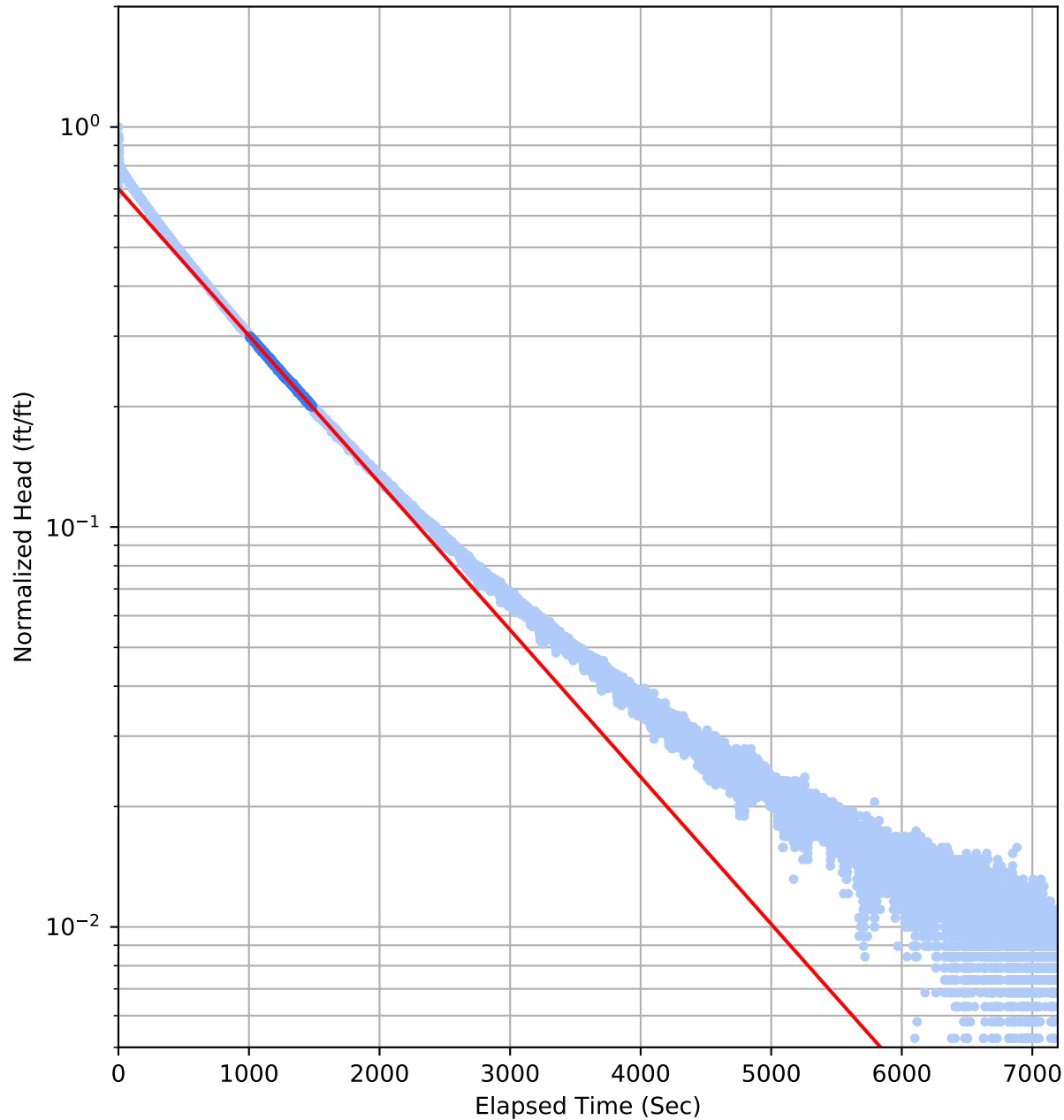
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 04-12-2018

Falling Head Test 1 at ES-20



Analysis Results

Hydraulic Conductivity (ft/day)	0.19
Standard Error of K (ft/day)	0.00015

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	145.88
Static Water Column Height (ft)	45.88
Initial Displacement (ft)	1.90
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	64.62
Screen Interval (ft bgs)	90.5 - 110.5
Screened Across Water Table?	No
Screened Unit	MCF

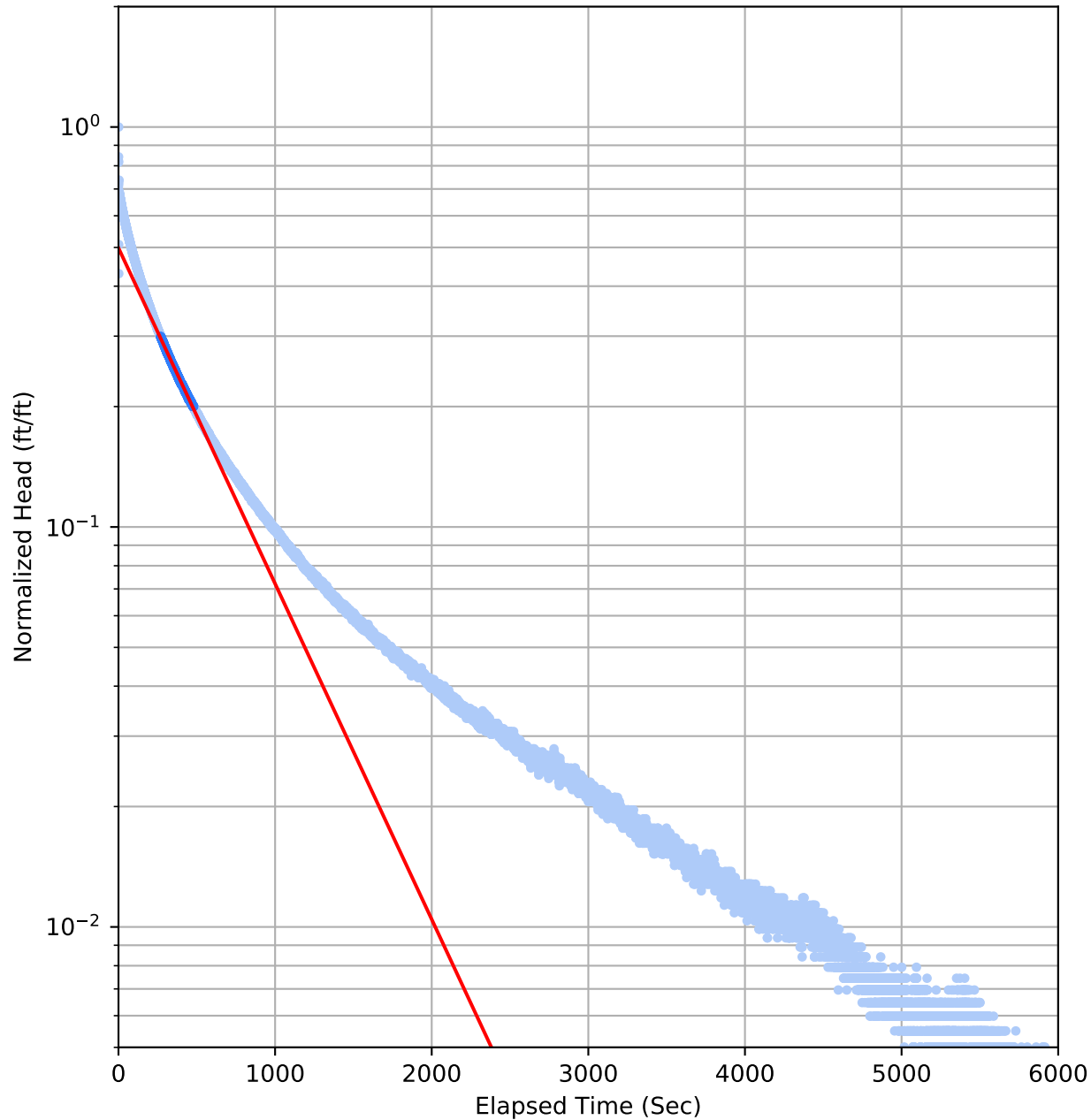
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 02-19-2018

Falling Head Test 1 at ES-21A



Analysis Results

Hydraulic Conductivity (ft/day)	0.38
Standard Error of K (ft/day)	0.0006

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	120.68
Static Water Column Height (ft)	20.68
Initial Displacement (ft)	2.05
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	29.32
Screen Interval (ft bgs)	30.0 - 50.0
Screened Across Water Table?	No
Screened Unit	MCF

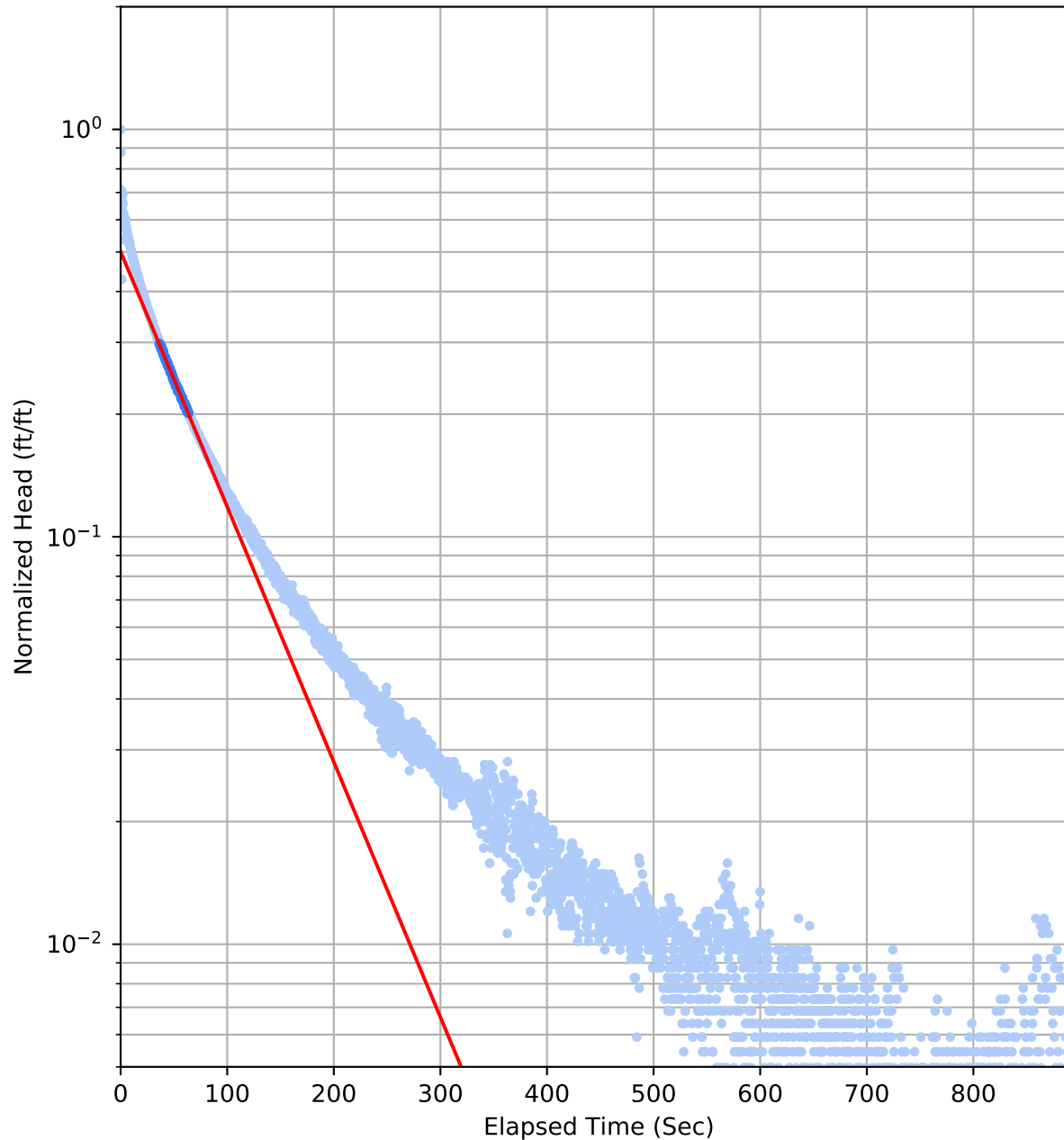
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 10-15-2018

Falling Head Test 1 at ES-21B



Analysis Results

Hydraulic Conductivity (ft/day)	3.2
Standard Error of K (ft/day)	0.019

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	147.51
Static Water Column Height (ft)	47.51
Initial Displacement (ft)	2.12
Expected Initial Displacement (ft)	-1.00
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	32.49
Screen Interval (ft bgs)	60.0 - 80.0
Screened Across Water Table?	No
Screened Unit	MCF

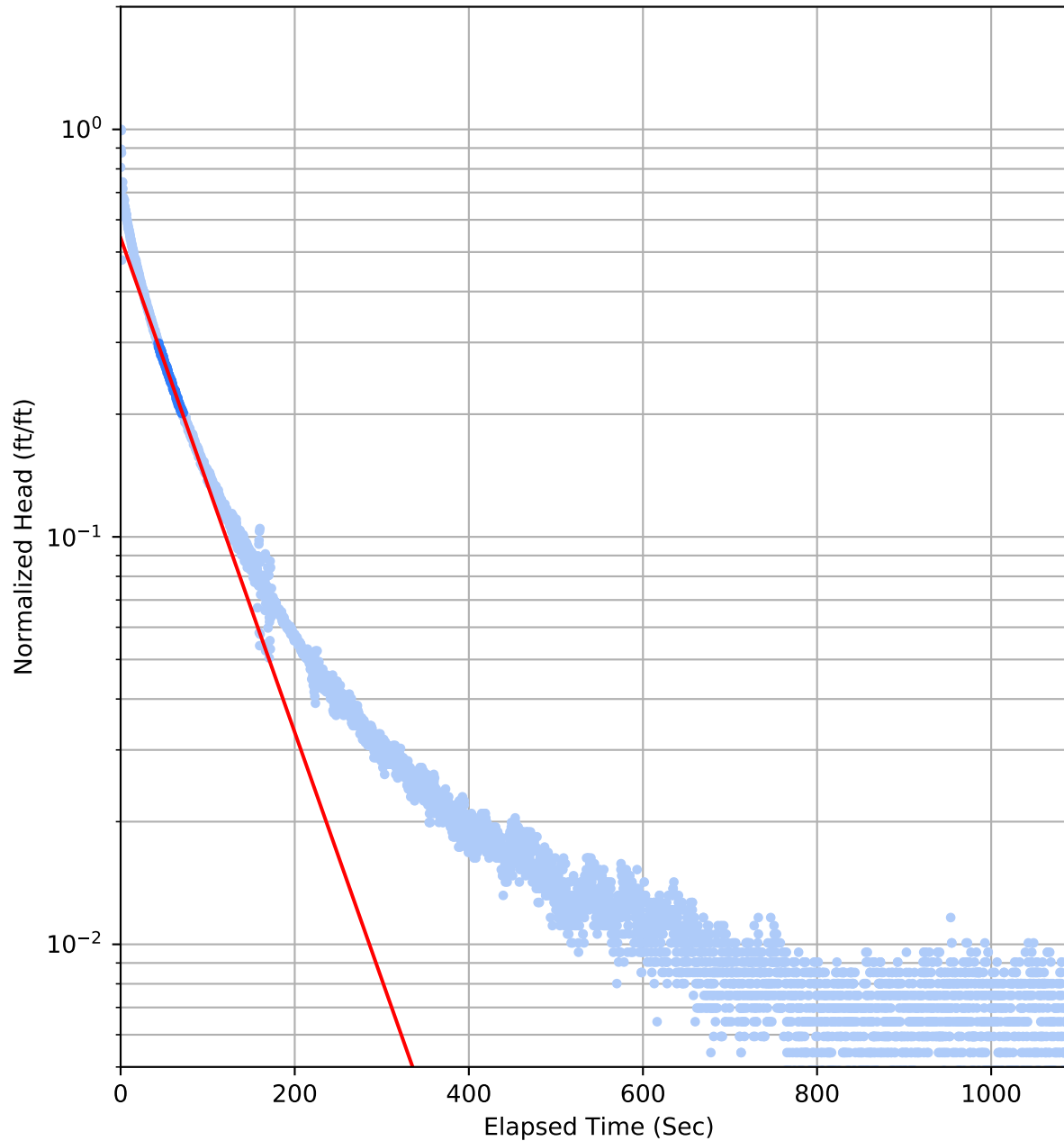
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 10-15-2018

Falling Head Test 2 at ES-21B



Analysis Results

Hydraulic Conductivity (ft/day)	3.1
Standard Error of K (ft/day)	0.023

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	147.51
Static Water Column Height (ft)	47.51
Initial Displacement (ft)	1.93
Expected Initial Displacement (ft)	-1.00
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	32.49
Screen Interval (ft bgs)	60.0 - 80.0
Screened Across Water Table?	No
Screened Unit	MCF

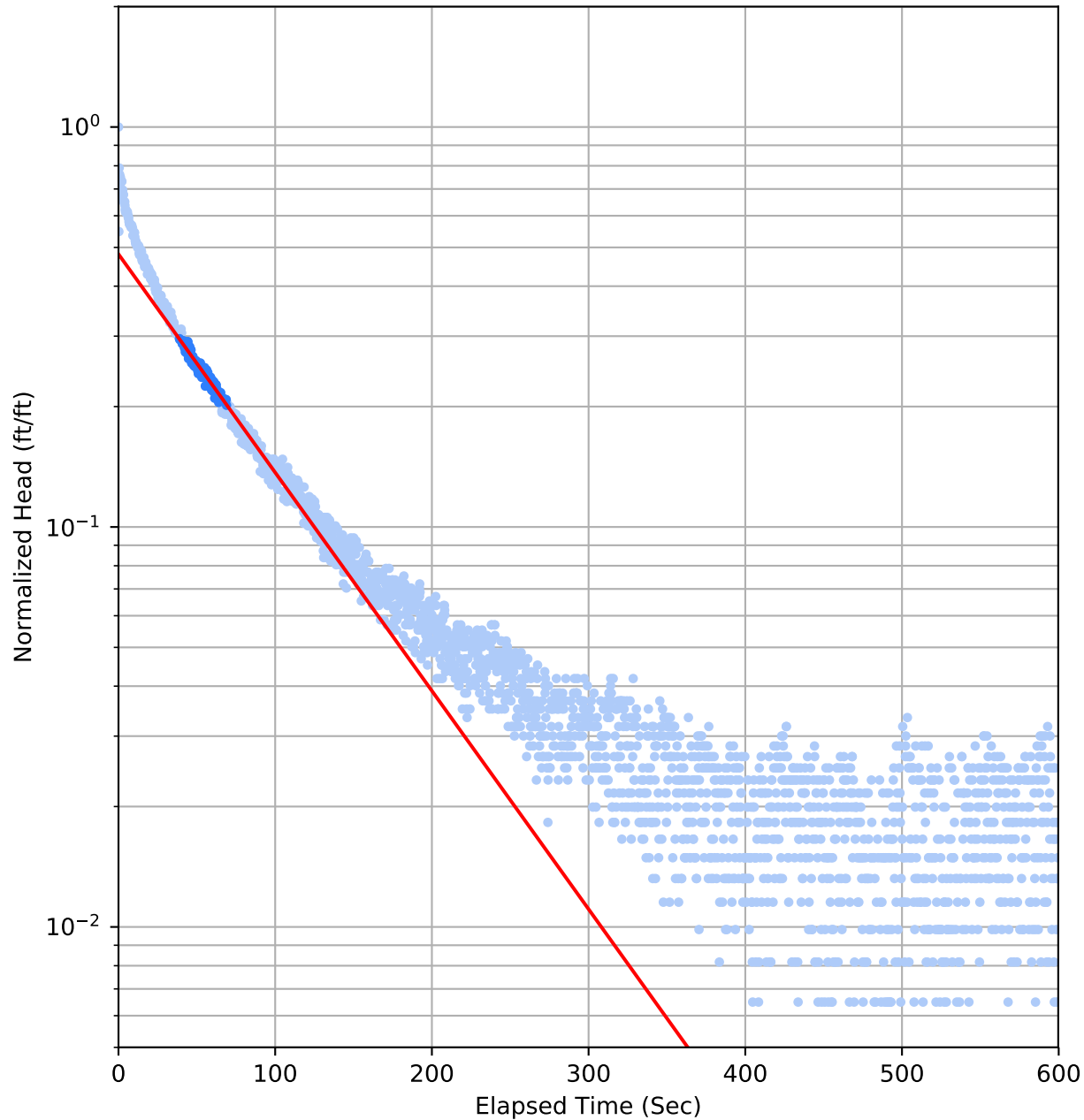
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 10-15-2018

Falling Head Test 3 at ES-21B



Analysis Results

Hydraulic Conductivity (ft/day)	2.8
Standard Error of K (ft/day)	0.065

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	147.51
Static Water Column Height (ft)	47.51
Initial Displacement (ft)	0.59
Expected Initial Displacement (ft)	-1.00
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	32.49
Screen Interval (ft bgs)	60.0 - 80.0
Screened Across Water Table?	No
Screened Unit	MCF

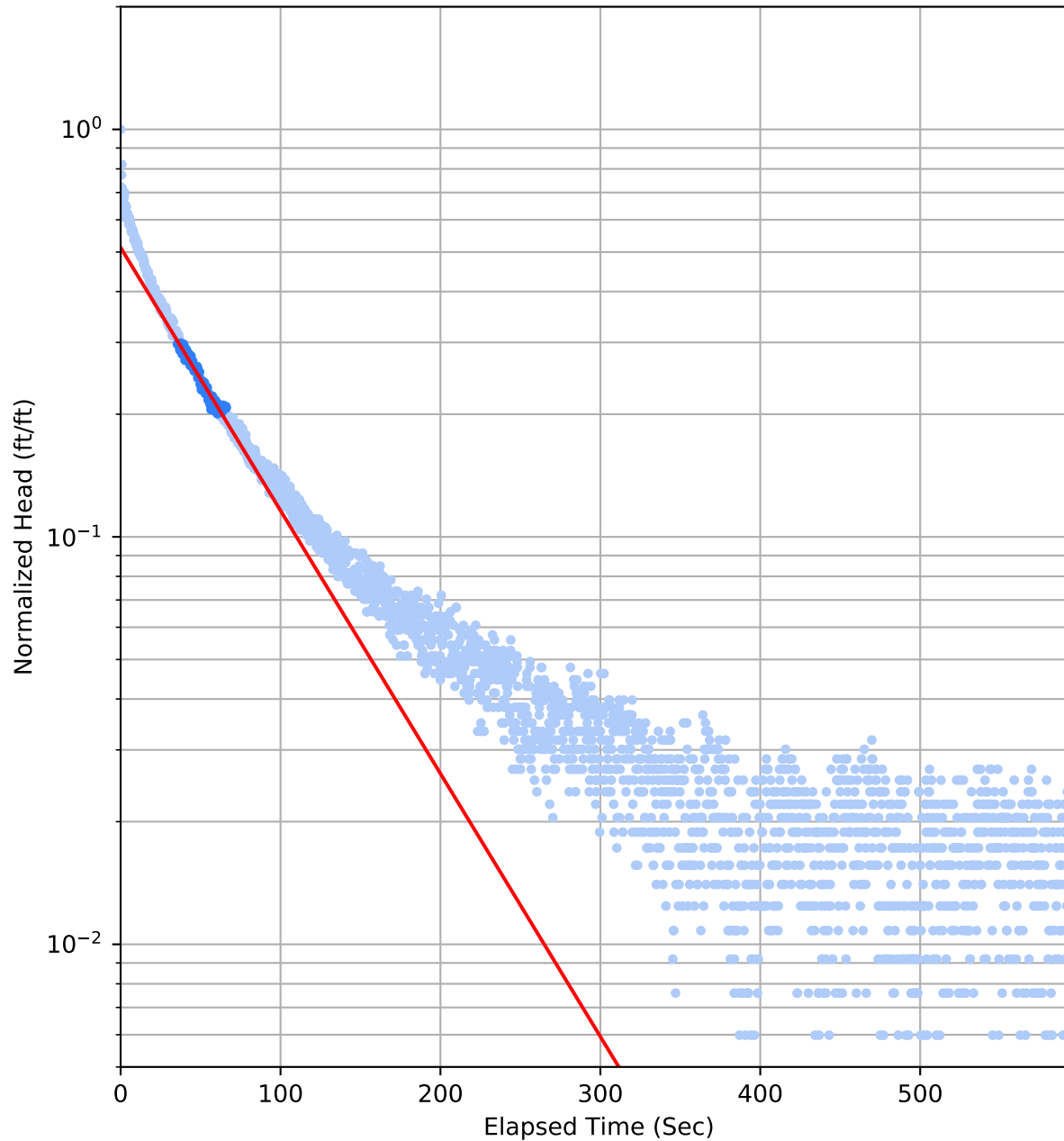
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 10-15-2018

Falling Head Test 4 at ES-21B



Analysis Results

Hydraulic Conductivity (ft/day)	3.3
Standard Error of K (ft/day)	0.076

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	147.51
Static Water Column Height (ft)	47.51
Initial Displacement (ft)	0.62
Expected Initial Displacement (ft)	-1.00
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	32.49
Screen Interval (ft bgs)	60.0 - 80.0
Screened Across Water Table?	No
Screened Unit	MCF

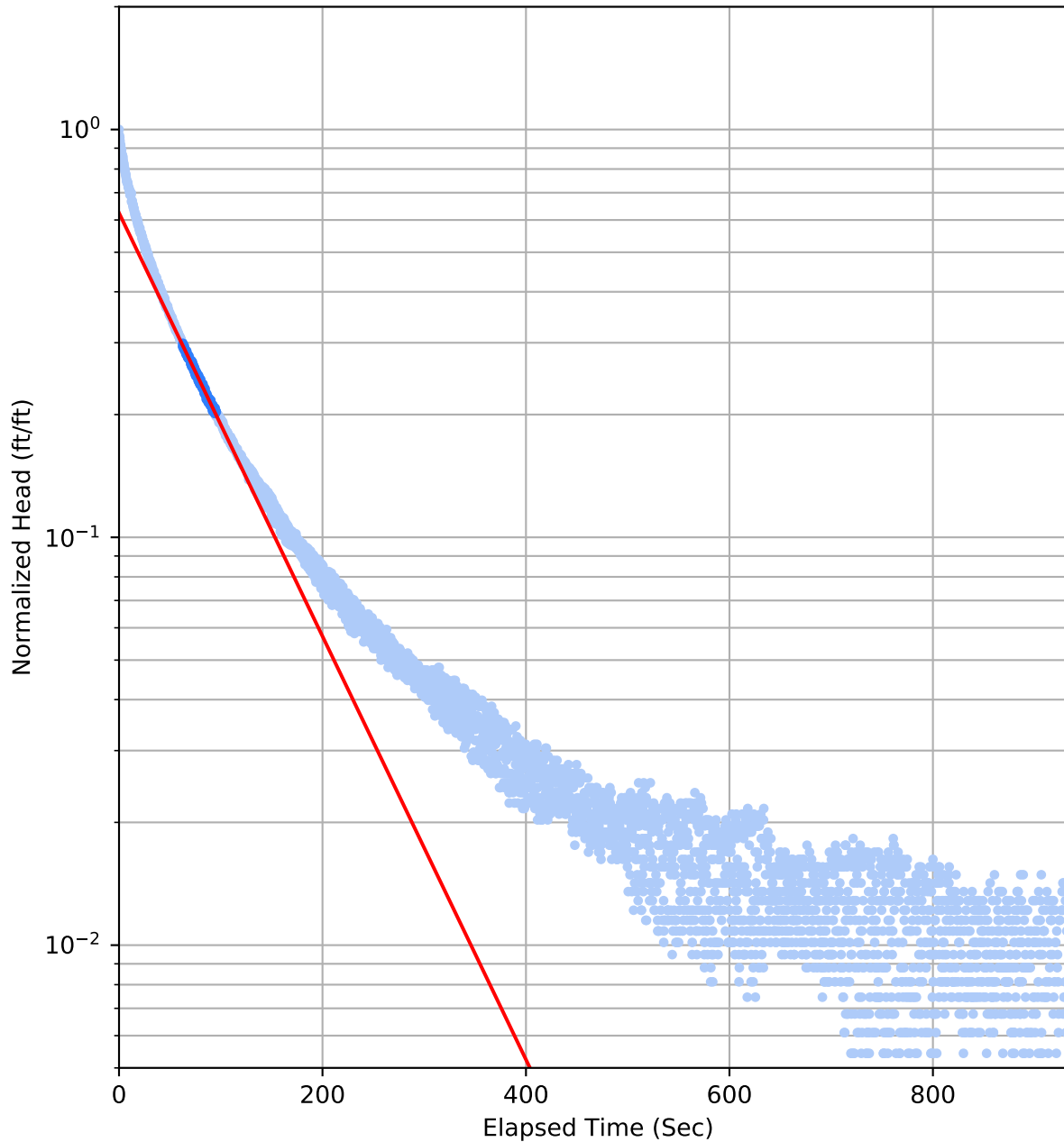
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 10-15-2018

Rising Head Test 1 at ES-21B



Analysis Results

Hydraulic Conductivity (ft/day)	2.7
Standard Error of K (ft/day)	0.022

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	147.51
Static Water Column Height (ft)	47.51
Initial Displacement (ft)	1.48
Expected Initial Displacement (ft)	-1.00
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	32.49
Screen Interval (ft bgs)	60.0 - 80.0
Screened Across Water Table?	No
Screened Unit	MCF

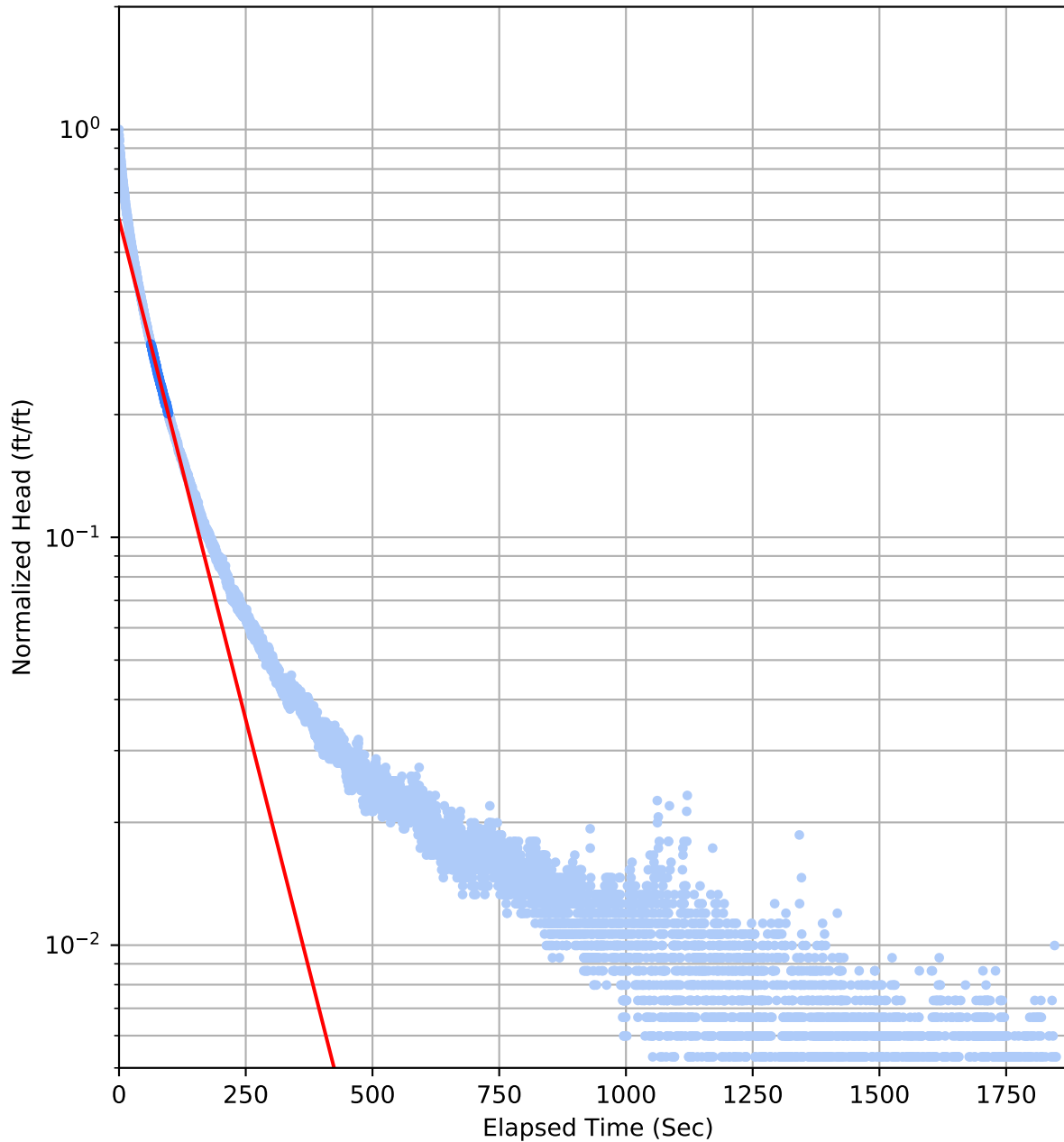
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 10-15-2018

Rising Head Test 2 at ES-21B



Analysis Results

Hydraulic Conductivity (ft/day)	2.5
Standard Error of K (ft/day)	0.014

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	147.51
Static Water Column Height (ft)	47.51
Initial Displacement (ft)	1.50
Expected Initial Displacement (ft)	-1.00
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	32.49
Screen Interval (ft bgs)	60.0 - 80.0
Screened Across Water Table?	No
Screened Unit	MCF

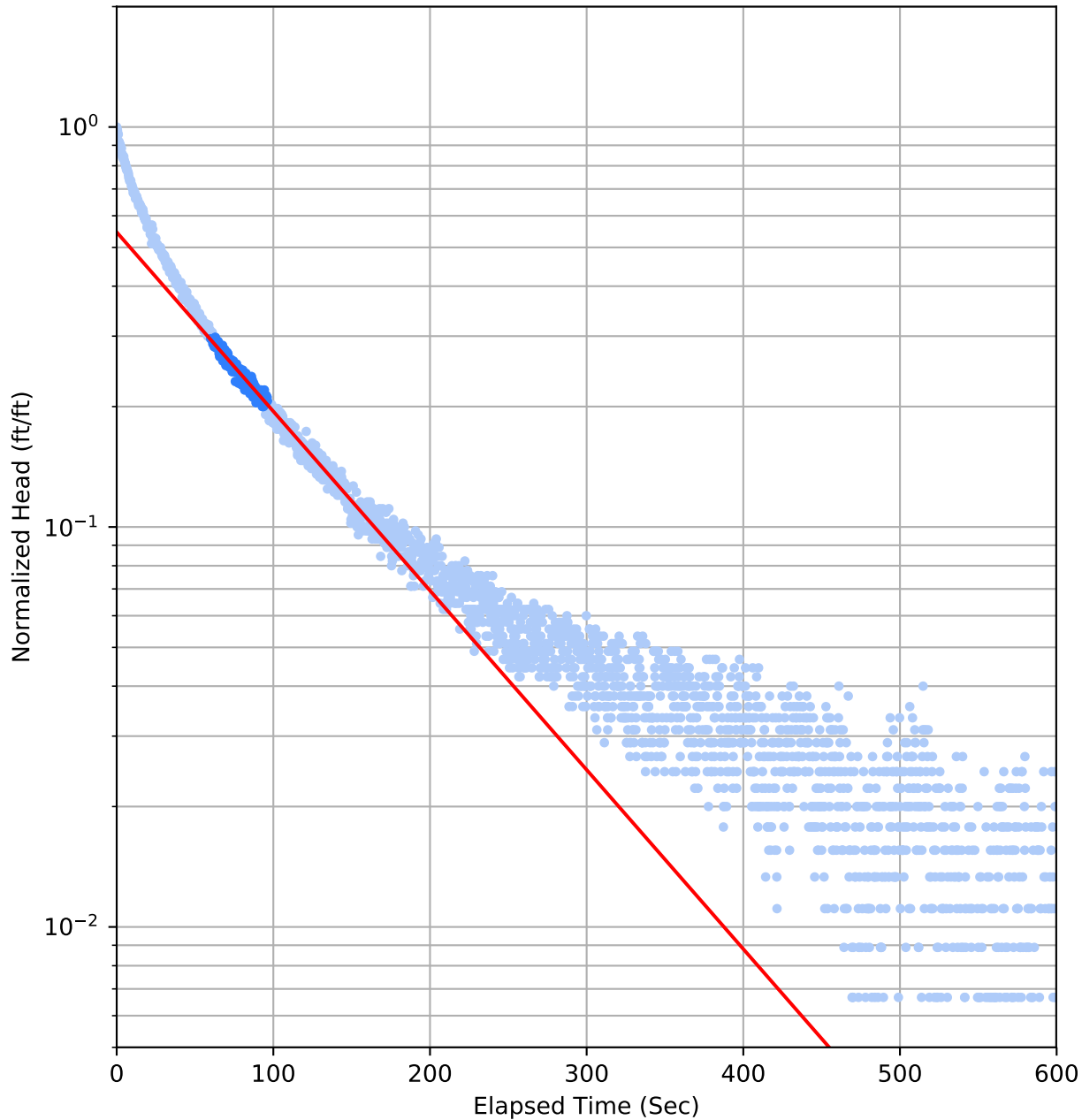
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 10-15-2018

Rising Head Test 3 at ES-21B



Analysis Results

Hydraulic Conductivity (ft/day)	2.3
Standard Error of K (ft/day)	0.051

Aquifer and Well Construction Parameters

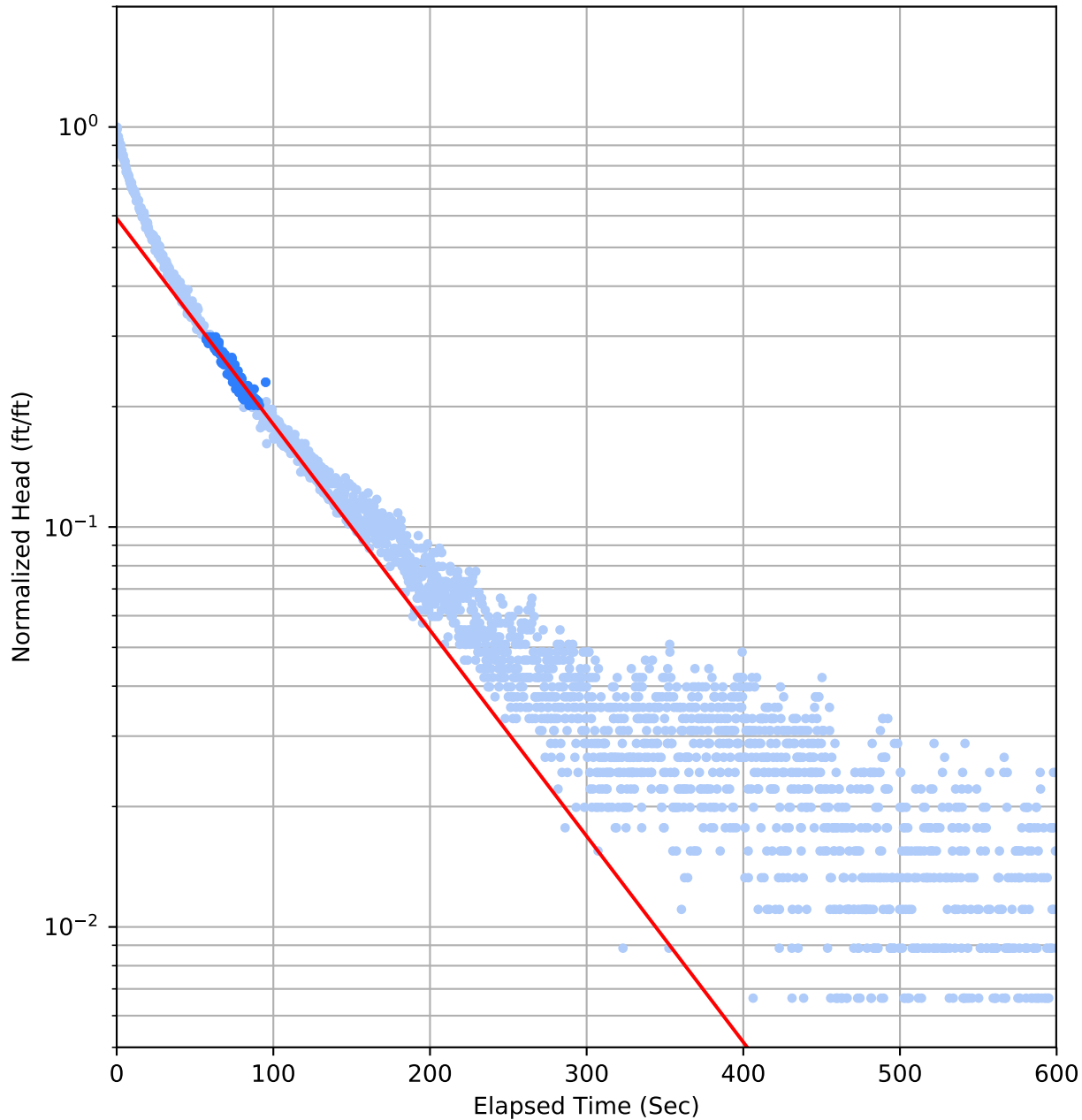
Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	147.51
Static Water Column Height (ft)	47.51
Initial Displacement (ft)	0.45
Expected Initial Displacement (ft)	-1.00
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	32.49
Screen Interval (ft bgs)	60.0 - 80.0
Screened Across Water Table?	No
Screened Unit	MCF

Notes:
 Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 10-15-2018

Rising Head Test 4 at ES-21B



Analysis Results

Hydraulic Conductivity (ft/day)	2.7
Standard Error of K (ft/day)	0.079

Aquifer and Well Construction Parameters

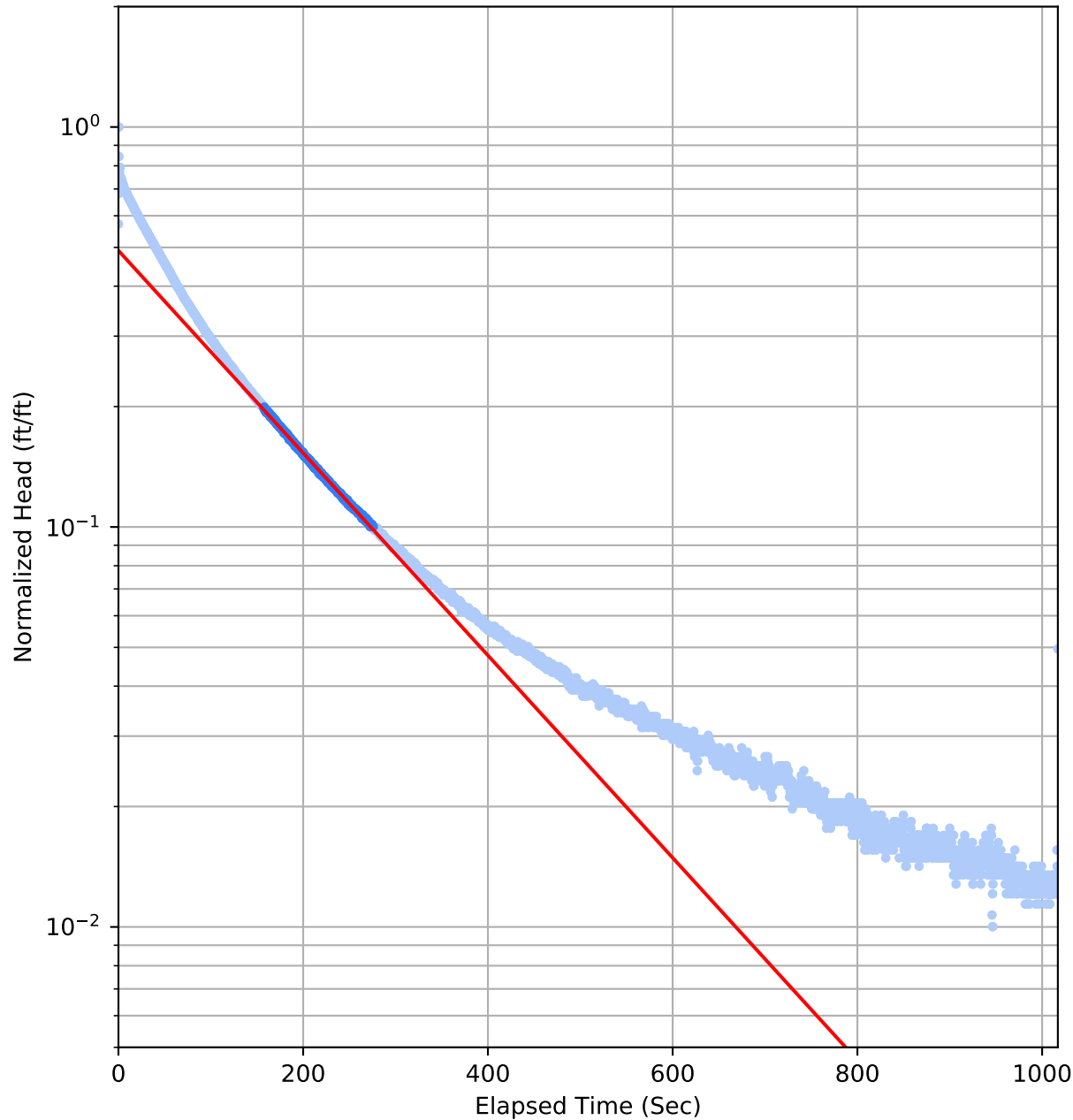
Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	147.51
Static Water Column Height (ft)	47.51
Initial Displacement (ft)	0.45
Expected Initial Displacement (ft)	-1.00
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	32.49
Screen Interval (ft bgs)	60.0 - 80.0
Screened Across Water Table?	No
Screened Unit	MCF

Notes:
 Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 10-15-2018

Falling Head Test 1 at ES-22A



Analysis Results

Hydraulic Conductivity (ft/day)	3.4
Standard Error of K (ft/day)	0.0062

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	110.21
Static Water Column Height (ft)	10.21
Initial Displacement (ft)	1.44
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.21
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	39.79
Screen Interval (ft bgs)	30.0 - 50.0
Screened Across Water Table?	Yes
Screened Unit	MCF

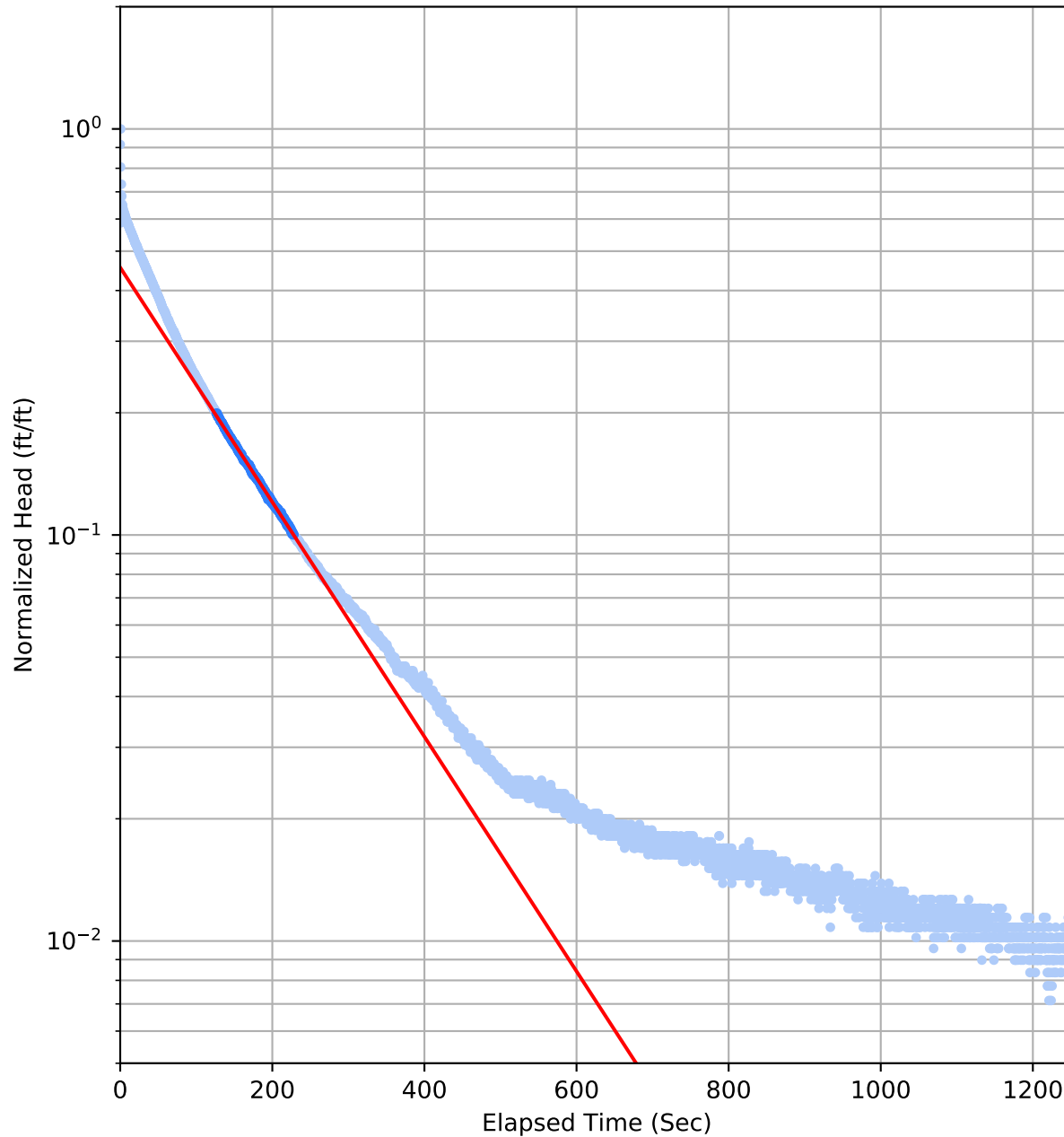
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 10-16-2018

Falling Head Test 2 at ES-22A



Analysis Results

Hydraulic Conductivity (ft/day)	3.9
Standard Error of K (ft/day)	0.0067

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	110.21
Static Water Column Height (ft)	10.21
Initial Displacement (ft)	1.63
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.21
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	39.79
Screen Interval (ft bgs)	30.0 - 50.0
Screened Across Water Table?	Yes
Screened Unit	MCF

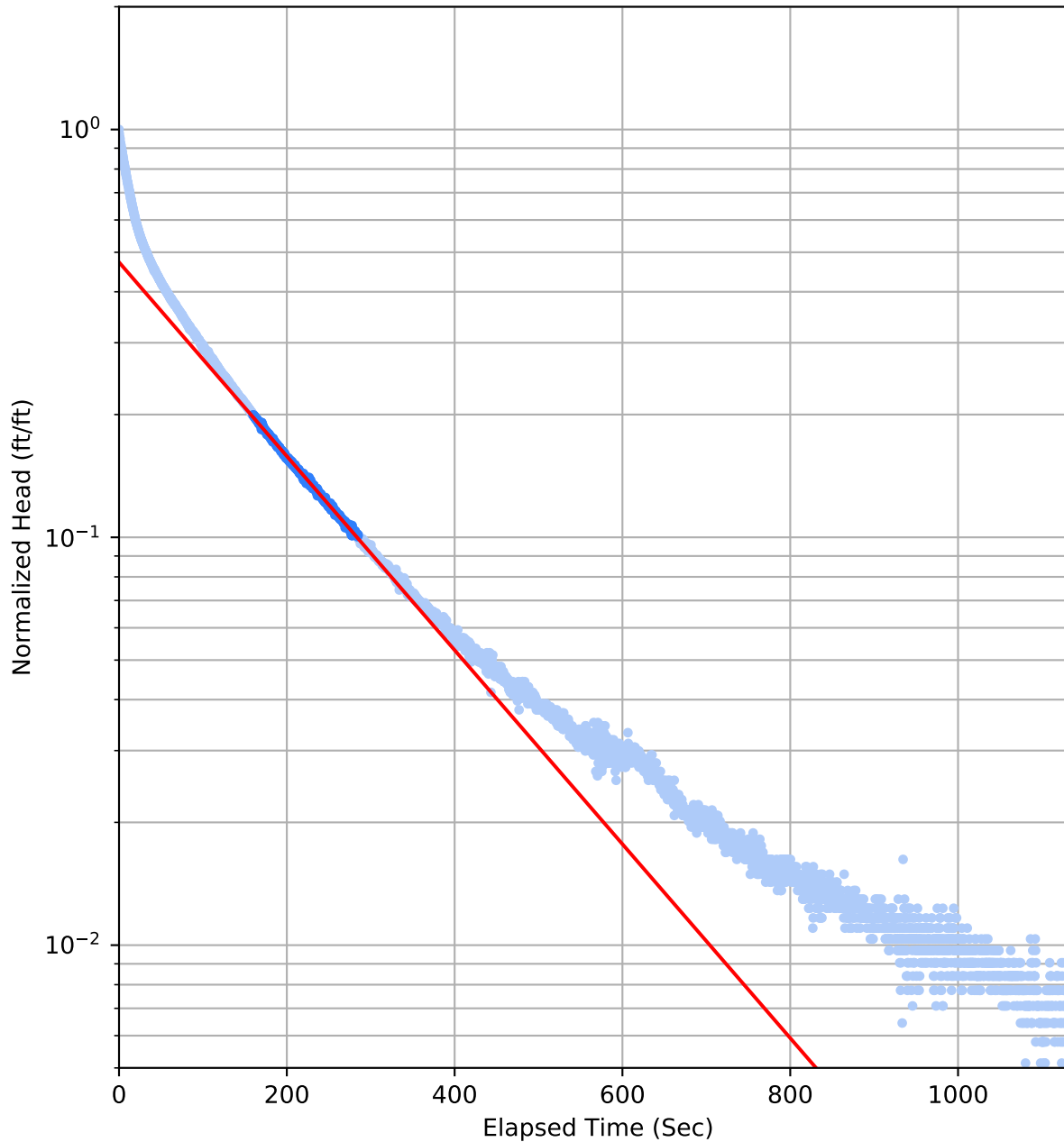
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 10-16-2018

Rising Head Test 1 at ES-22A



Analysis Results

Hydraulic Conductivity (ft/day)	3.2
Standard Error of K (ft/day)	0.0062

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	110.21
Static Water Column Height (ft)	10.21
Initial Displacement (ft)	1.53
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.21
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	39.79
Screen Interval (ft bgs)	30.0 - 50.0
Screened Across Water Table?	Yes
Screened Unit	MCF

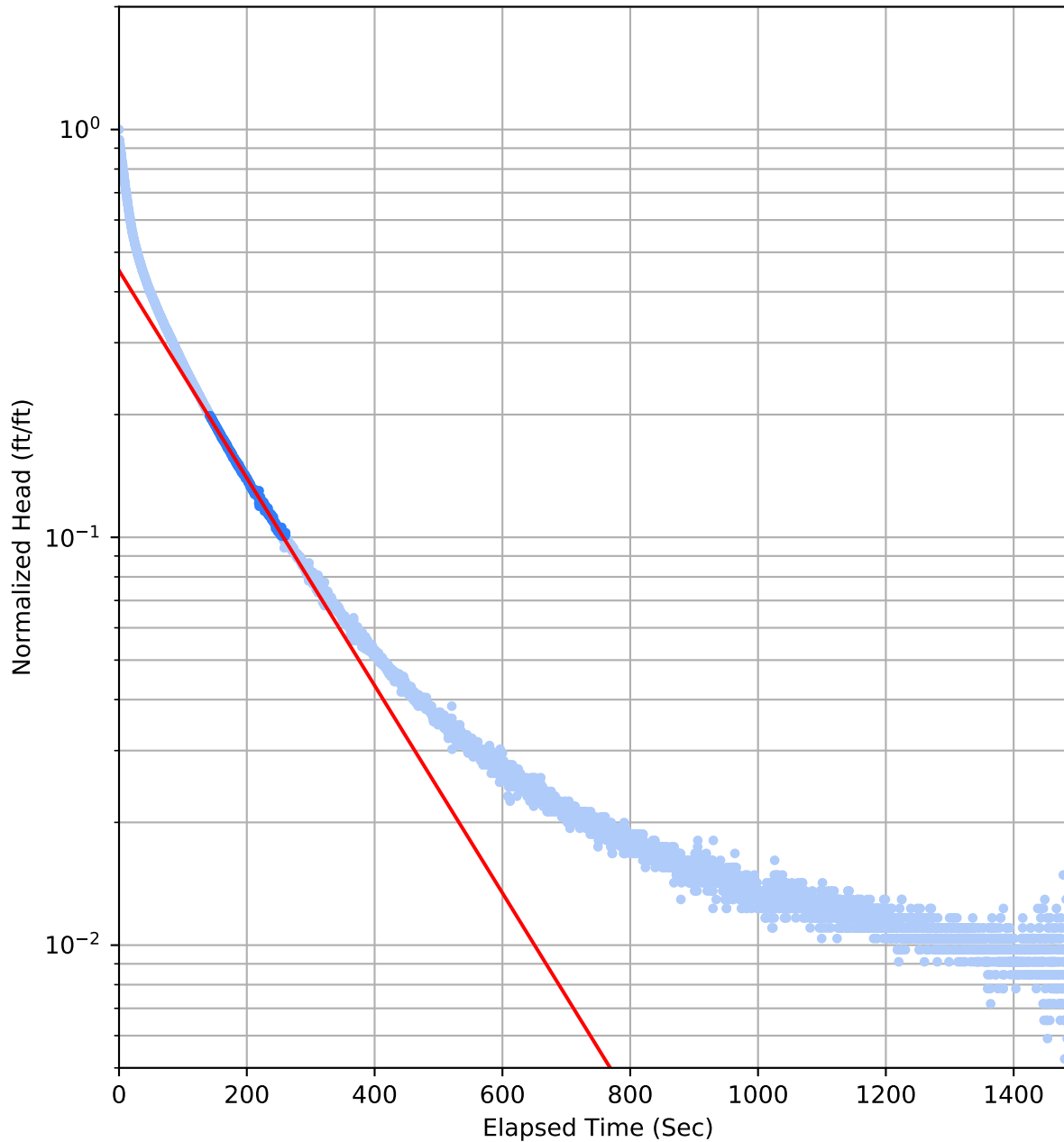
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 10-16-2018

Rising Head Test 2 at ES-22A



Analysis Results

Hydraulic Conductivity (ft/day)	3.4
Standard Error of K (ft/day)	0.008

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	110.21
Static Water Column Height (ft)	10.21
Initial Displacement (ft)	1.56
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	10.21
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	39.79
Screen Interval (ft bgs)	30.0 - 50.0
Screened Across Water Table?	Yes
Screened Unit	MCF

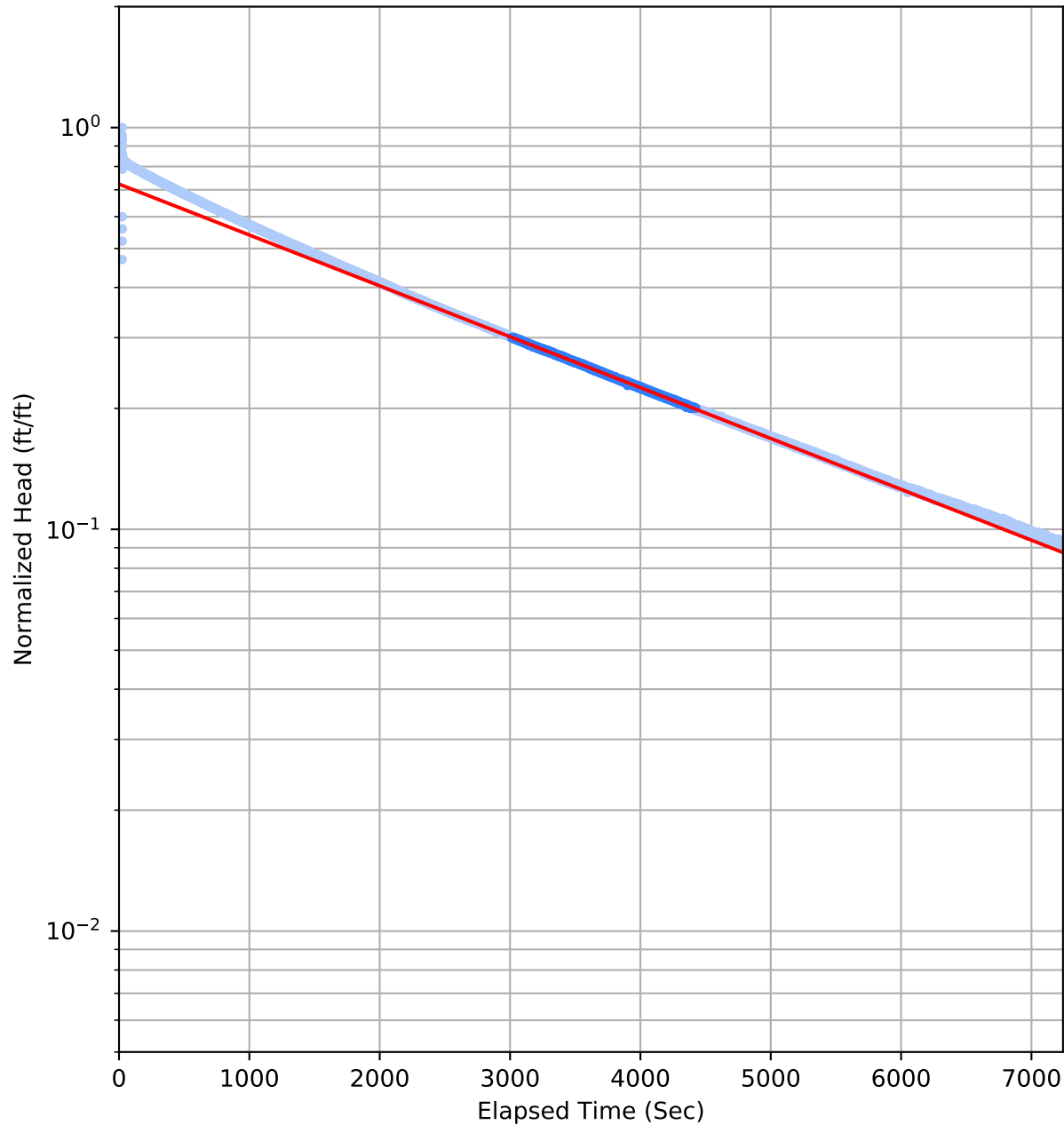
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Well is screened across the water table.
Fit in normalized head range 0.10 to 0.20

Test date: 10-16-2018

Falling Head Test 1 at ES-22B



Analysis Results

Hydraulic Conductivity (ft/day)	0.065
Standard Error of K (ft/day)	1.6e-05

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	138.22
Static Water Column Height (ft)	38.22
Initial Displacement (ft)	1.76
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	41.78
Screen Interval (ft bgs)	60.0 - 80.0
Screened Across Water Table?	No
Screened Unit	MCF

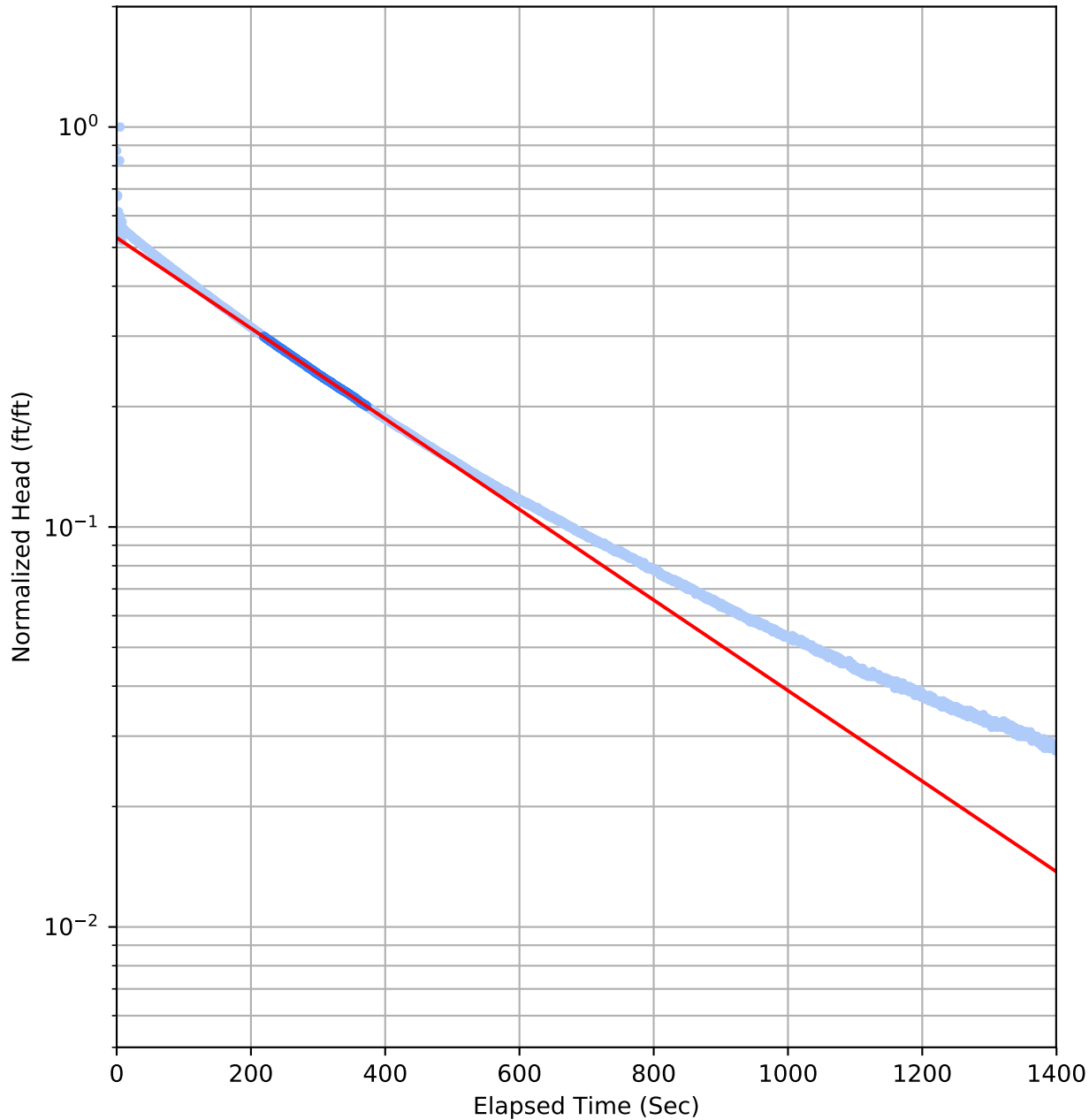
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 10-16-2018

Falling Head Test 1 at ES-23A



Analysis Results

Hydraulic Conductivity (ft/day)	0.52
Standard Error of K (ft/day)	0.00052

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	121.57
Static Water Column Height (ft)	21.57
Initial Displacement (ft)	2.50
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	28.43
Screen Interval (ft bgs)	30.0 - 50.0
Screened Across Water Table?	No
Screened Unit	MCF

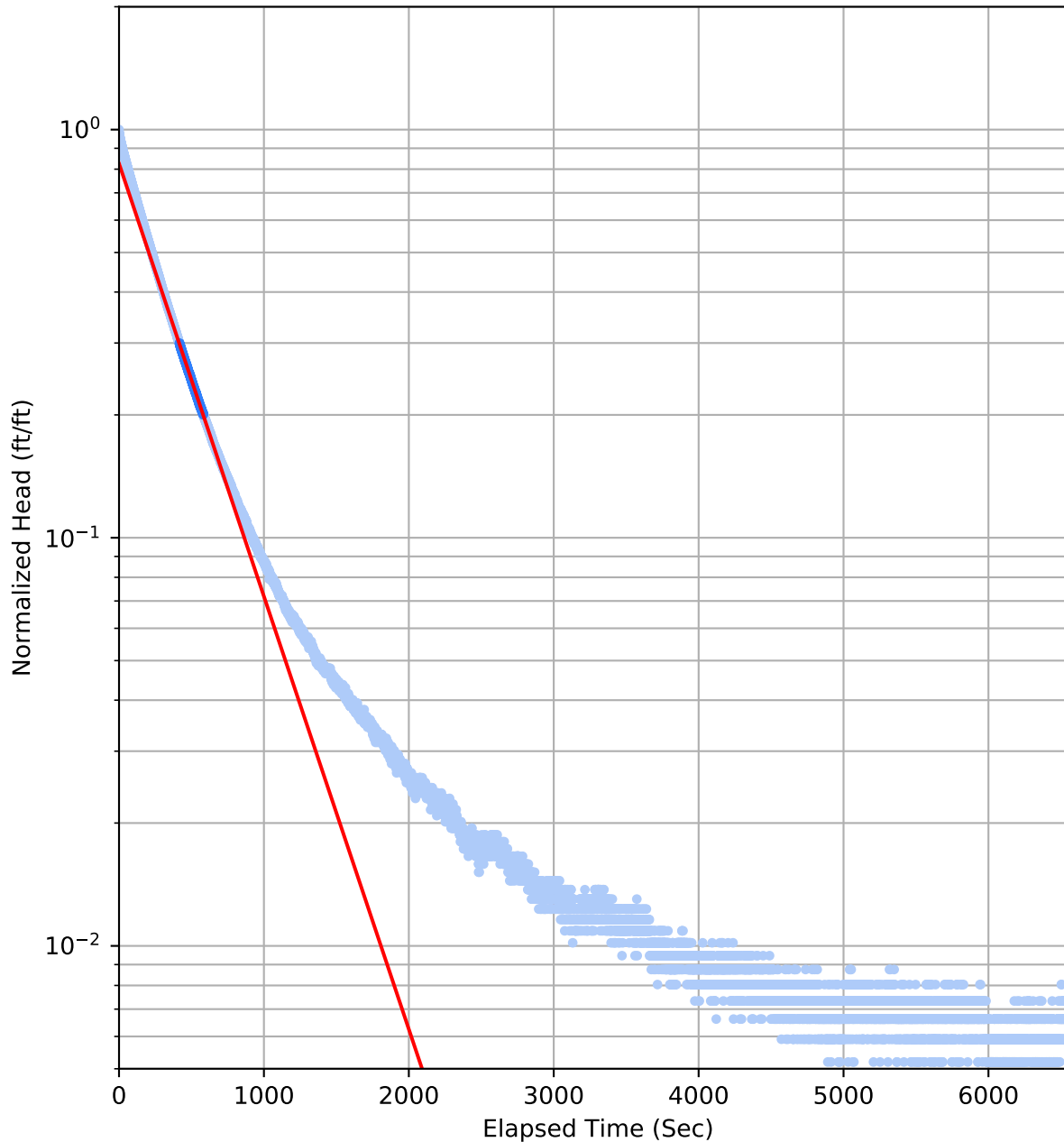
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 10-17-2018

Rising Head Test 1 at ES-23A



Analysis Results

Hydraulic Conductivity (ft/day)	0.49
Standard Error of K (ft/day)	0.00062

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Rising Head
Saturated Thickness (ft)	121.57
Static Water Column Height (ft)	21.57
Initial Displacement (ft)	1.41
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	28.43
Screen Interval (ft bgs)	30.0 - 50.0
Screened Across Water Table?	No
Screened Unit	MCF

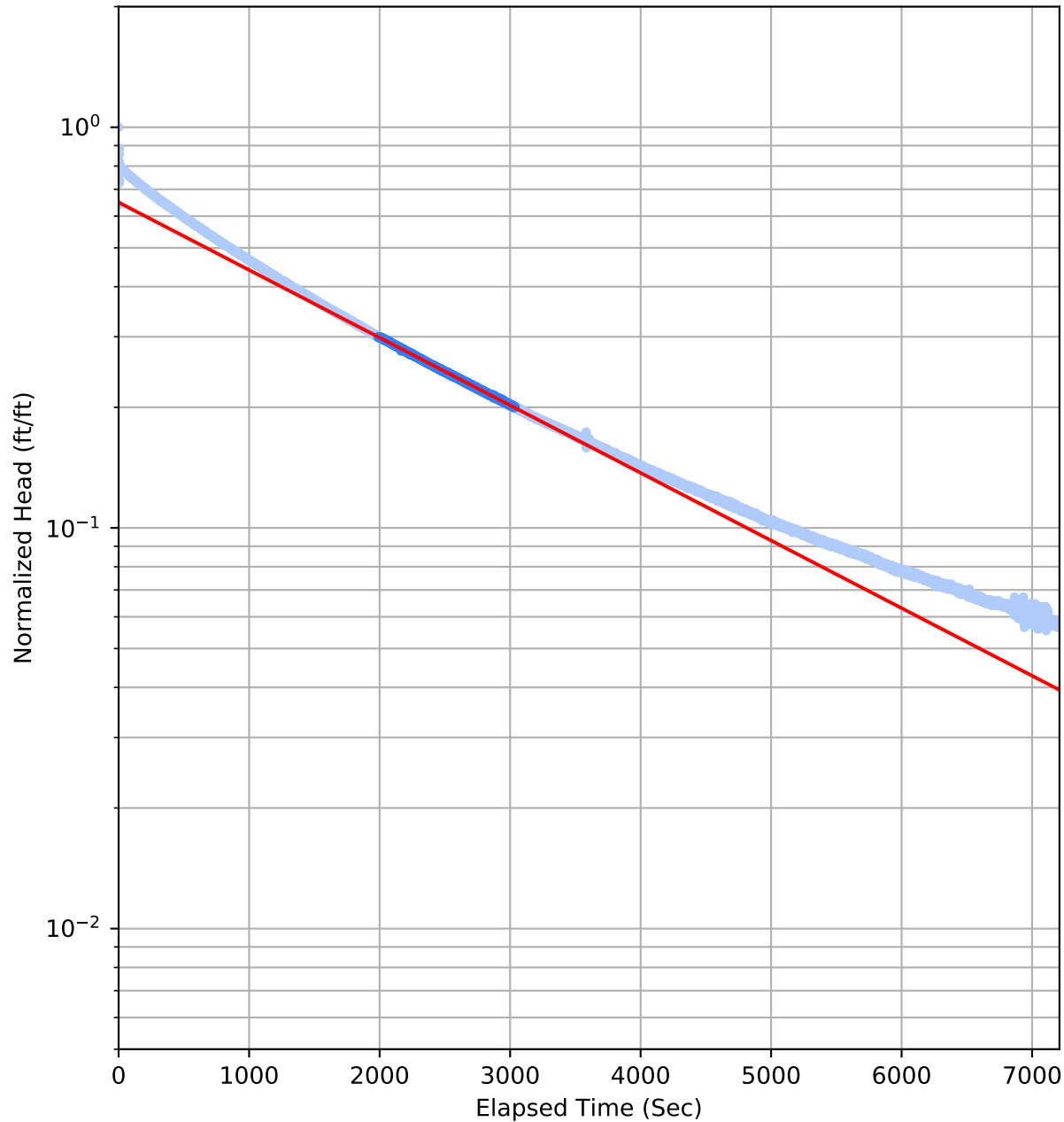
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 10-17-2018

Falling Head Test 1 at ES-23B



Analysis Results

Hydraulic Conductivity (ft/day)	0.09
Standard Error of K (ft/day)	4.6e-05

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	252.97
Static Water Column Height (ft)	152.97
Initial Displacement (ft)	1.95
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	37.03
Screen Interval (ft bgs)	170.0 - 190.0
Screened Across Water Table?	No
Screened Unit	MCF

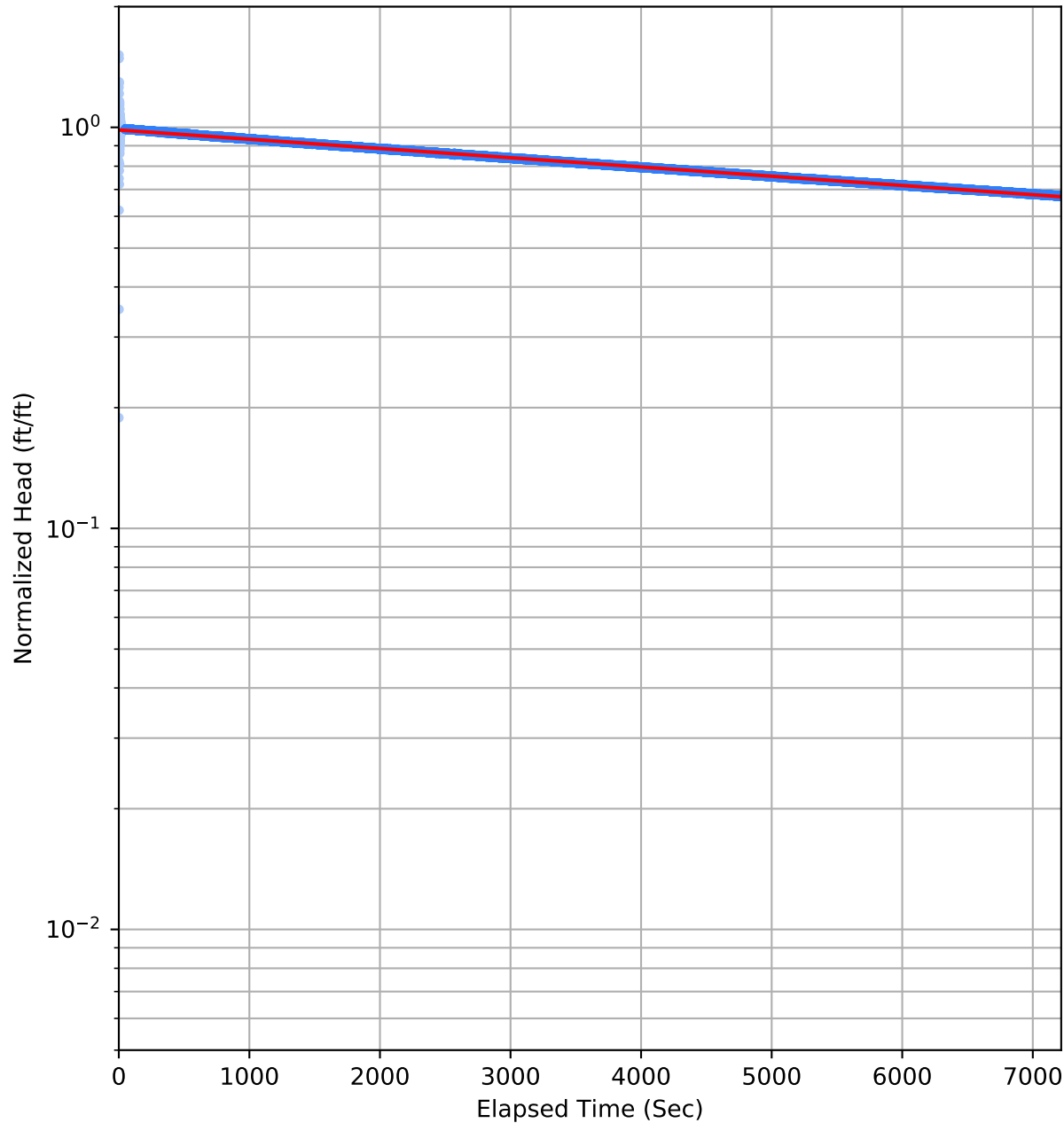
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Fit in normalized head range 0.20 to 0.30

Test date: 10-18-2018

Falling Head Test 1 at ES-24



Analysis Results

Hydraulic Conductivity (ft/day)	0.012
Standard Error of K (ft/day)	1.6e-06

Aquifer and Well Construction Parameters

Aquifer Type	Unconfined
Test Type	Falling Head
Saturated Thickness (ft)	155.28
Static Water Column Height (ft)	55.28
Initial Displacement (ft)	1.51
Expected Initial Displacement (ft)	1.51
Saturated Screen Length (ft)	20.00
Well Radius (ft)	0.33
Casing Radius (ft)	0.17
Static Water Level Depth (ft bgs)	24.72
Screen Interval (ft bgs)	60.0 - 80.0
Screened Across Water Table?	No
Screened Unit	MCF

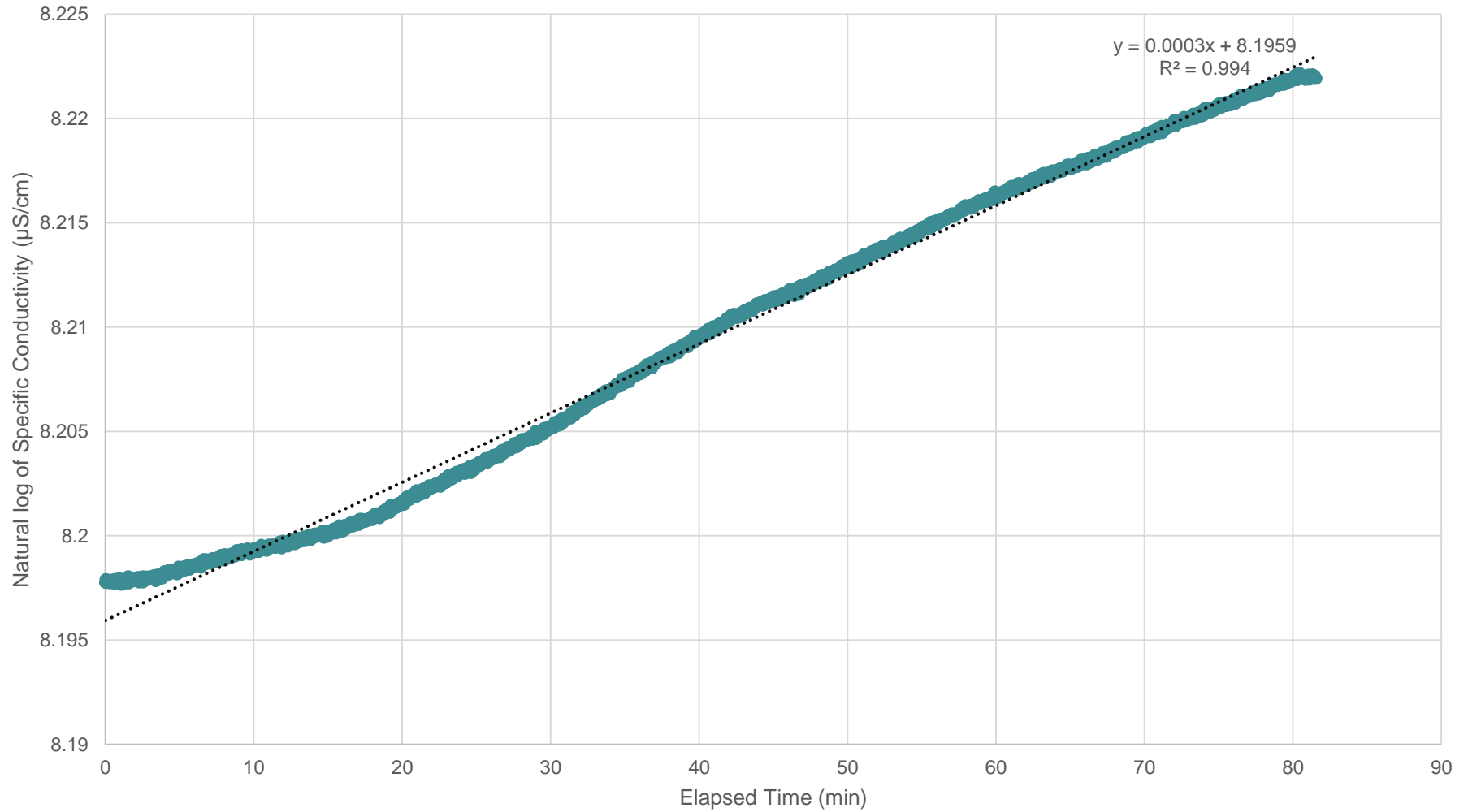
Notes:

Test data analyzed using the Bouwer and Rice Solution for Slug Tests (1976) with the shape factor correction described in Zlotnick et al. (2010)

Water levels did not recover to the recommended normalized head range.
Fit in normalized head range 0.00 to 1.00

Test date: 10-16-2018

**ATTACHMENT D-2
PLOTS FROM RI BOREHOLE DILUTION TESTS**



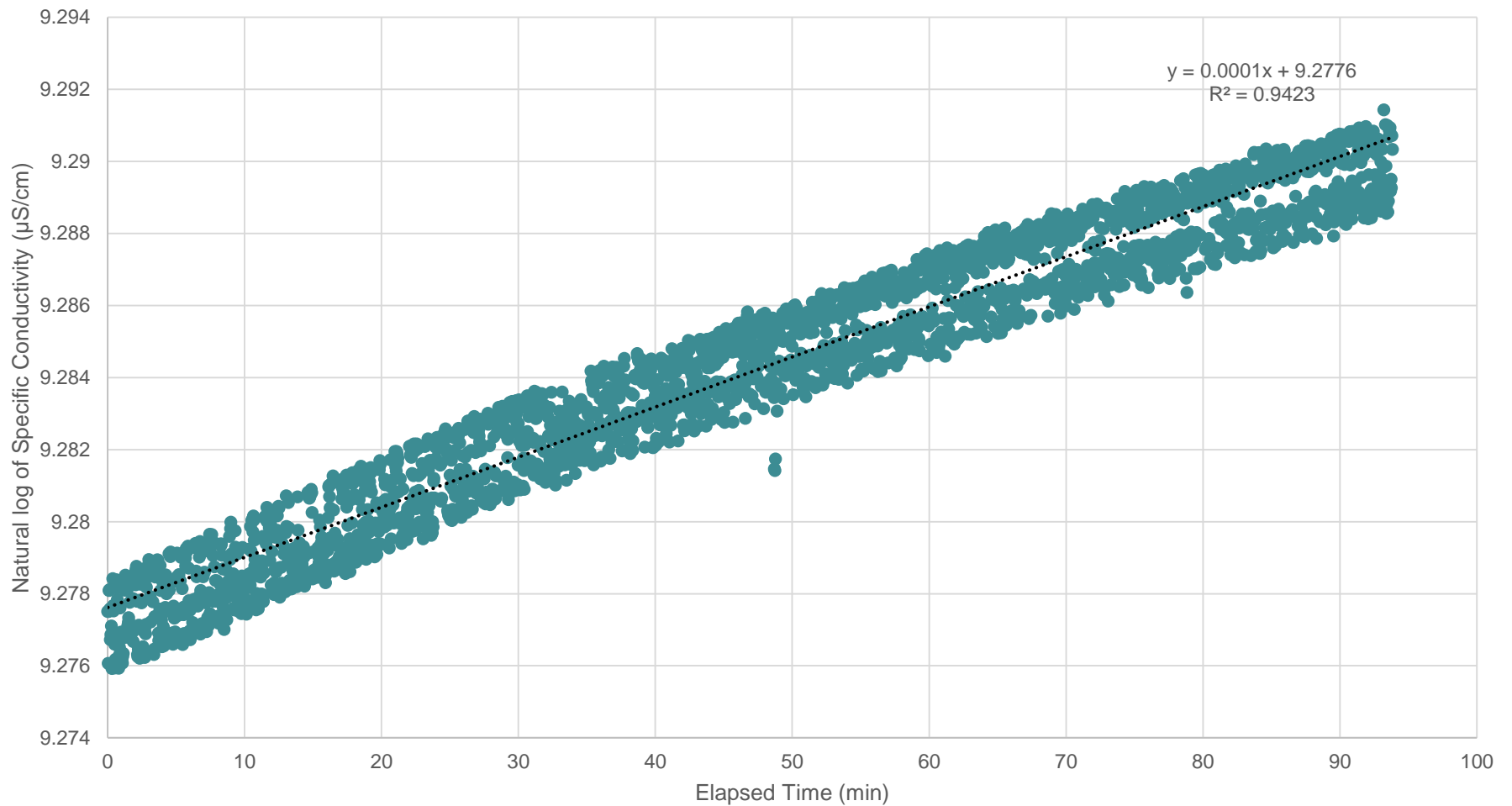
The groundwater velocity within the well estimated from the plot is 1.02E-01 feet per day.
 The depth of sensor is 3.65 feet.



Specific Conductivity vs. Time for ES-3 Sensor 3

Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
 D-2a



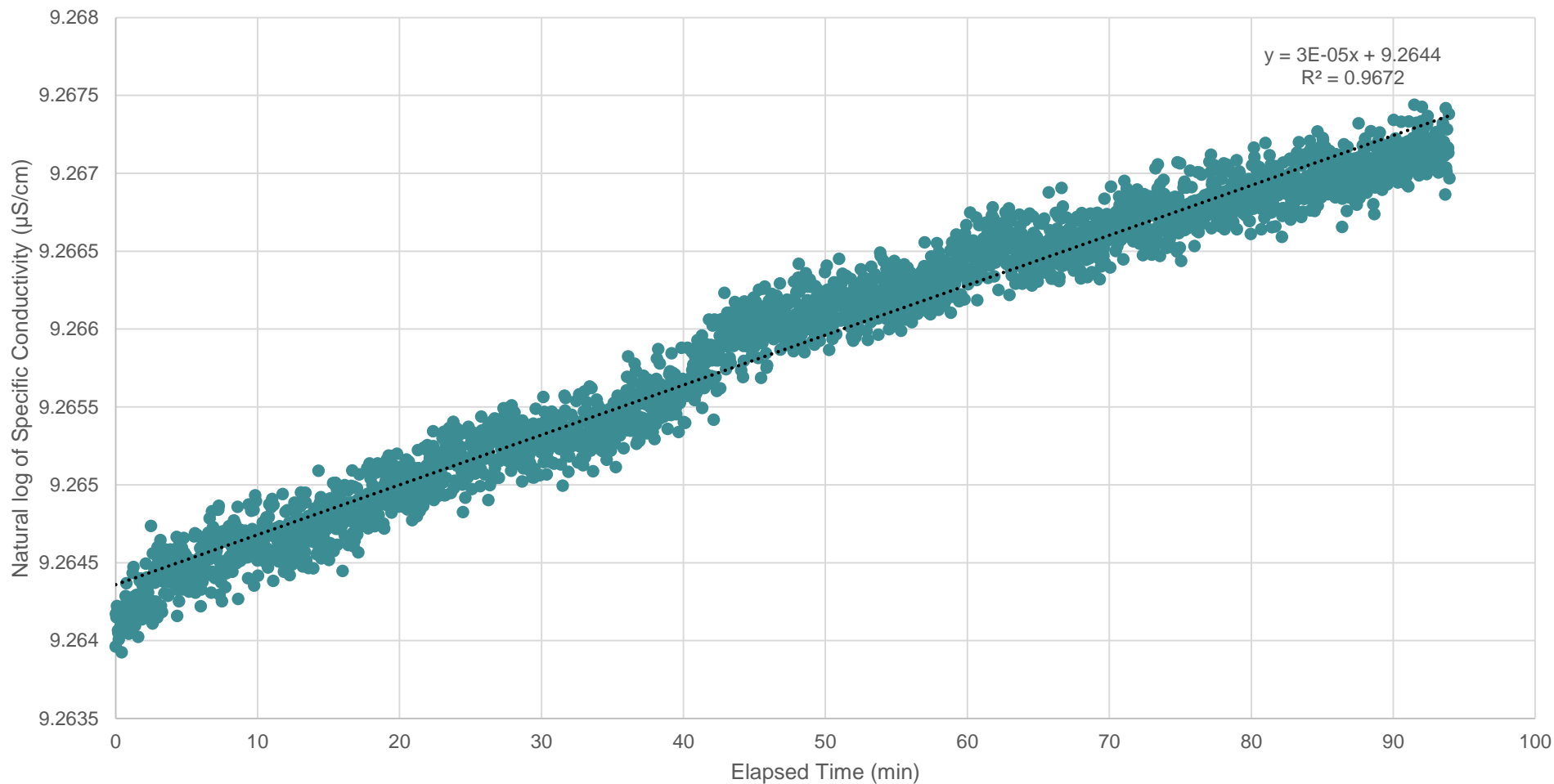
The groundwater velocity within the well estimated from the plot is 3.40E-02 feet per day.
The depth of sensor is 38.75 feet.



Specific Conductivity vs. Time for ES-10 Sensor 1

Nevada Environmental Response Trust Site
Henderson, Nevada

Figure
D-2b



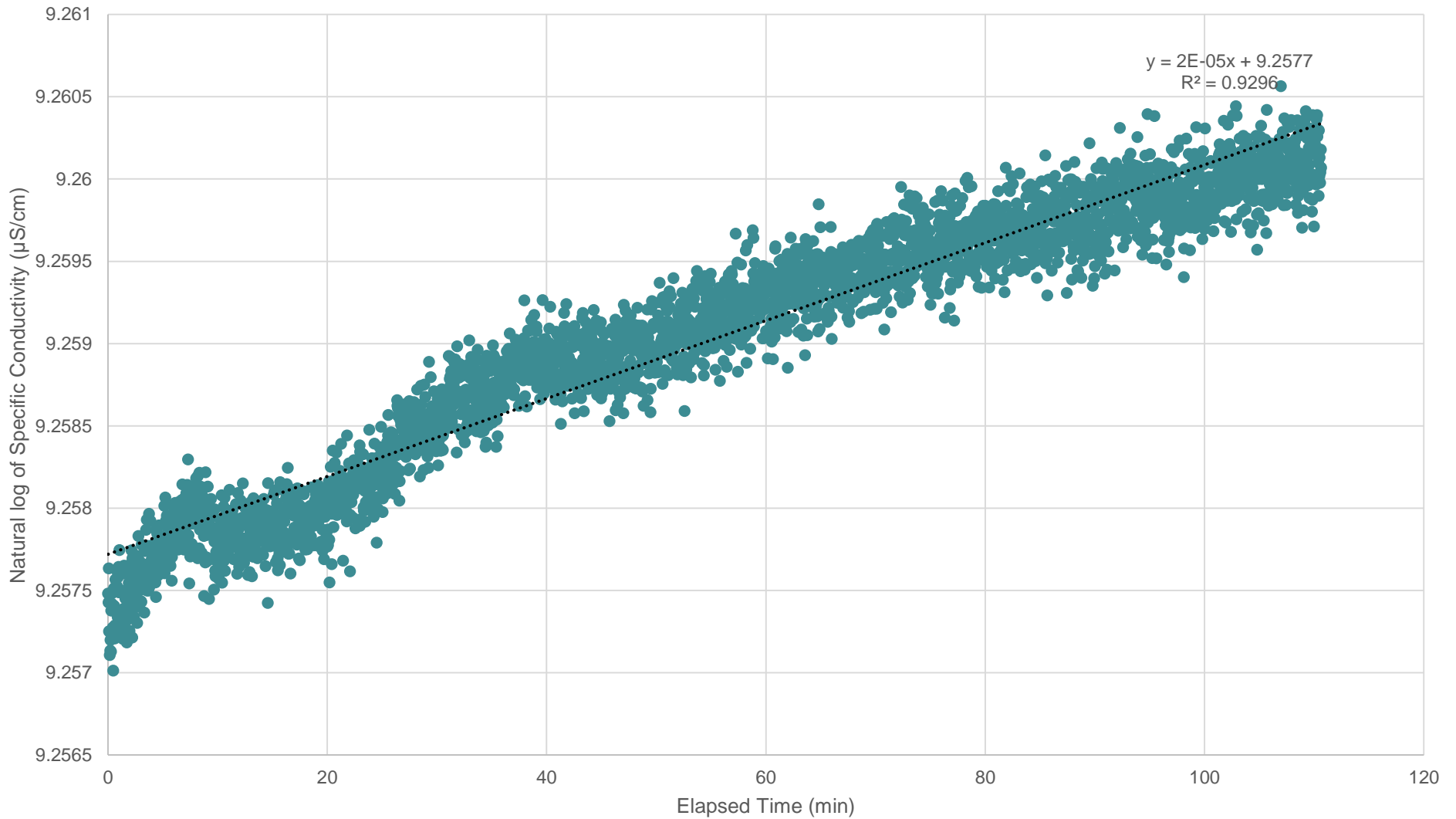
The groundwater velocity within the well estimated from the plot is 1.02E-02 feet per day.
 The depth of sensor is 33.69 feet.



Specific Conductivity vs. Time for ES-10 Sensor 2

Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
 D-2c



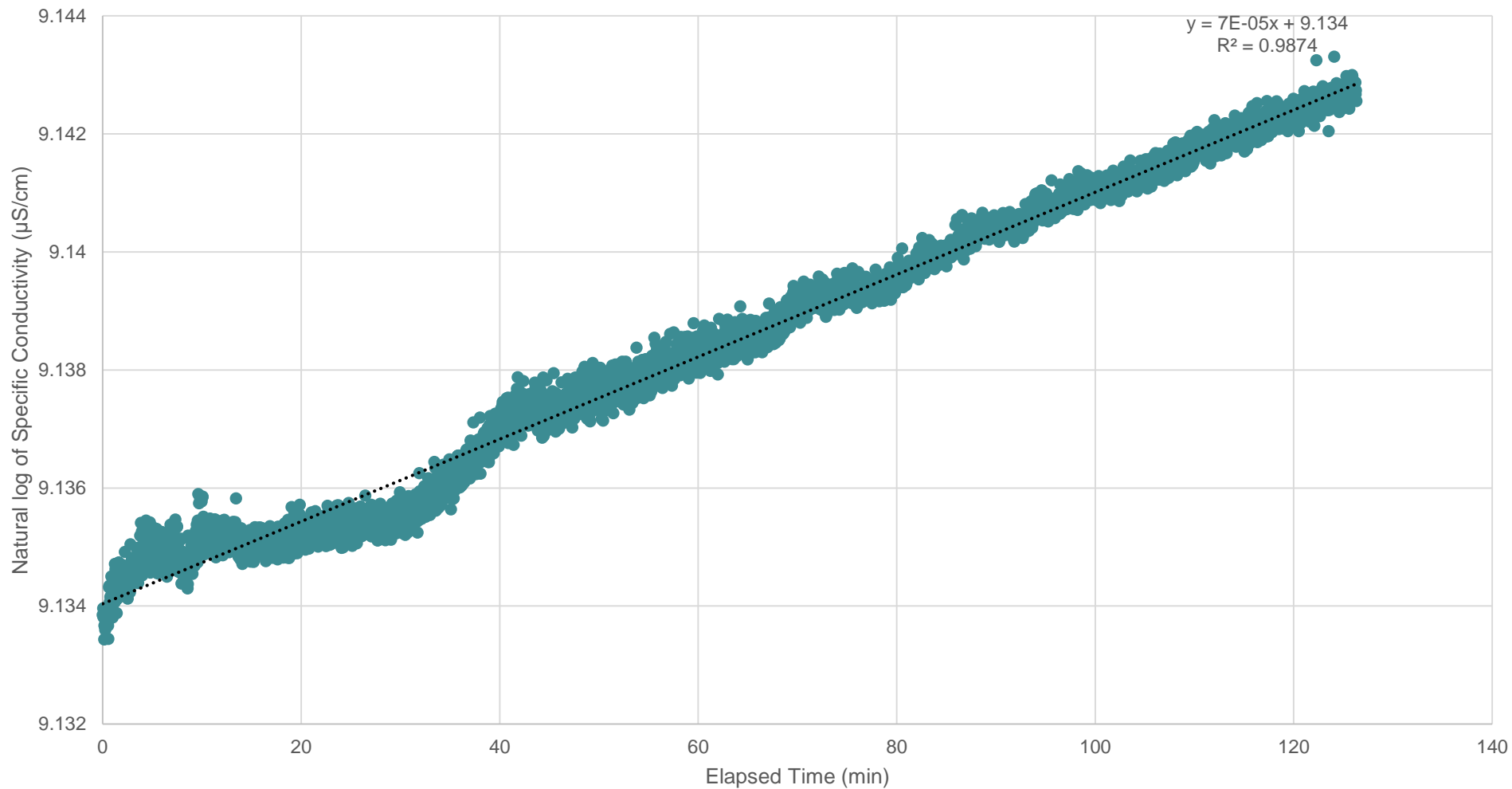
The groundwater velocity within the well estimated from the plot is $6.80E-03$ feet per day.
 The depth of sensor is 28.55 feet.



Specific Conductivity vs. Time for ES-10 Sensor 3

Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
 D-2d



The groundwater velocity within the well estimated from the plot is 2.38E-02 feet per day.
 The depth of sensor is 23.24 feet.



Specific Conductivity vs. Time for ES-10 Sensor 4

Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
 D-2e