

A topographic map with blue contour lines of varying thickness and spacing, representing different elevations. A dashed blue line traces a path across the map, starting from the left side and moving generally towards the right. The path follows the contours, crossing them at various points. The map is partially cut off on the left and bottom edges.

APPENDIX D
Slug Test Results

Table D-1
Rising-Head Test Analyses
Airport Kwik Stop Site
Ione, Washington

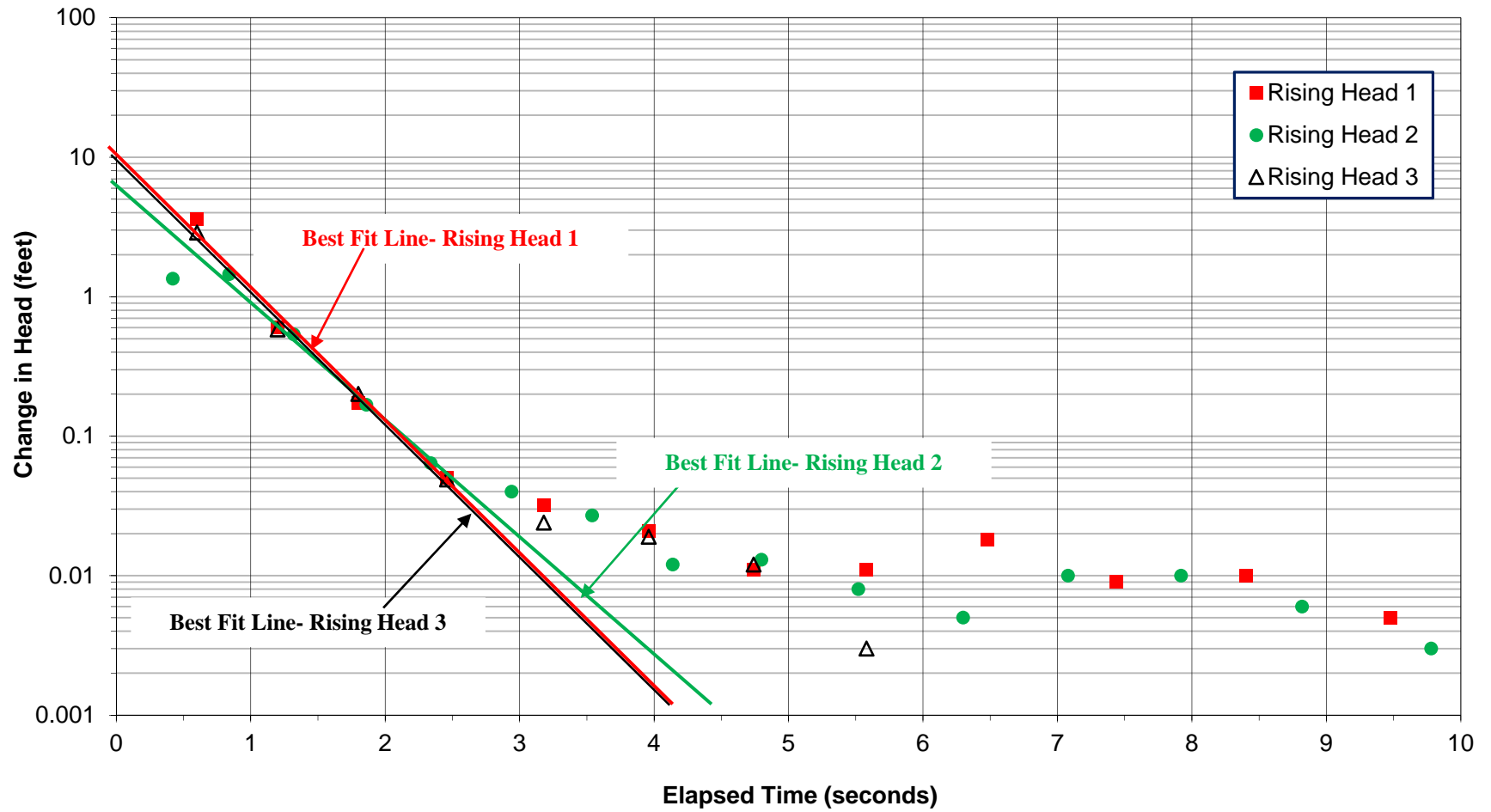
Monitoring Well Symbol Unit	Test Type and Number	Well Casing Radius r_c feet	Borehole Radius r_w feet	Saturated Screen Interval L_e feet	Sand Pack Porosity (if applicable) ¹ n	Corrected Well Casing Radius (if applicable) ¹ r_{ec} feet	Ground Surface to Screen Bottom feet	Ground Surface to Aquifer Bottom feet	Depth to Water feet	Static Potentiometric Level to Screen Bottom L_w feet	Static Potentiometric Level to Aquifer Bottom H feet	L_e/r_w	Dimensionless Parameters (if applicable) ² (Ref.2, Fig.2, p. 305)			$\ln(R_e/r_w)$ (Ref. 2, Eqn. 4, p. 305) ³	Data Points Along the Straight Line Portion of log Y vs. T				Hydraulic Conductivity (Ref. 2, Eqn. 3, p. 305) K feet/day	Hydraulic Conductivity (Ref. 2, Eqn. 3, p. 305) ⁵ K cm/sec
													A	B	C		Y_1 feet	T_1 minutes	Y_2 feet	T_2 minutes		
MW-6	RH1	0.083	0.32	10.0	0.30	0.187	46.5	46.5	36.5	10.00	10.00	31	NA	NA	2.1	2.59	10.0	0	0.001	0.07	8.6E+02	3.0E-01
MW-6	RH2	0.083	0.32	10.0	0.30	0.187	46.5	46.5	36.5	10.00	10.00	31	NA	NA	2.1	2.59	5.8	0	0.001	0.08	7.6E+02	2.7E-01
MW-6	RH3	0.083	0.32	10.0	0.30	0.187	46.5	46.5	36.5	10.00	10.00	31	NA	NA	2.1	2.59	9.5	0	0.001	0.07	8.7E+02	3.1E-01
MW-7	RH1	0.083	0.32	7.0	0.30	0.187	41.0	41.0	34.0	7.00	7.00	22	NA	NA	1.7	2.31	1.2	0	0.001	2.20	2.7E+01	9.5E-03
MW-7	RH2	0.083	0.32	7.0	0.30	0.187	41.0	41.0	34.0	7.00	7.00	22	NA	NA	1.7	2.31	1.10	0	0.001	2.62	2.2E+01	7.9E-03
MW-7	RH3	0.083	0.32	7.0	0.30	0.187	41.0	41.0	34.0	7.00	7.00	22	NA	NA	1.7	2.31	1.10	0	0.001	2.63	2.2E+01	7.8E-03
MW-9	RH1	0.083	0.32	11.2	0.30	0.187	47.0	47.0	35.8	11.20	11.20	35	NA	NA	2.2	2.69	8.5	0	0.001	0.09	5.9E+02	2.1E-01
MW-9	RH2	0.083	0.32	11.2	0.30	0.187	47.0	47.0	35.8	11.20	11.20	35	NA	NA	2.2	2.69	9.0	0	0.001	0.10	5.7E+02	2.0E-01
MW-9	RH3	0.083	0.32	11.2	0.30	0.187	47.0	47.0	35.8	11.20	11.20	35	NA	NA	2.2	2.69	5.0	0	0.001	0.09	5.8E+02	2.0E-01
MW-10	RH1	0.083	0.32	5.5	0.30	0.187	18.5	18.5	13.0	5.50	5.50	17	NA	NA	1.6	2.09	7.0	0	0.010	0.15	4.3E+02	1.5E-01
MW-10	RH2	0.083	0.32	5.5	0.30	0.187	18.5	18.5	13.0	5.50	5.50	17	NA	NA	1.6	2.09	6.0	0	0.010	0.14	4.3E+02	1.5E-01
MW-10	RH3	0.083	0.32	5.5	0.30	0.187	18.5	18.5	13.0	5.50	5.50	17	NA	NA	1.6	2.09	5.5	0	0.010	0.09	7.1E+02	2.5E-01
MW-10	RH4	0.083	0.32	5.5	0.30	0.187	18.5	18.5	13.0	5.50	5.50	17	NA	NA	1.6	2.09	3.1	0	0.010	0.16	3.6E+02	1.3E-01
MW-19	RH1	0.083	0.32	9.0	0.30	0.187	43.5	43.5	34.5	9.00	9.00	28	NA	NA	2.0	2.50	2.7	0	0.001	0.09	6.4E+02	2.3E-01
MW-19	RH2	0.083	0.32	9.0	0.30	0.187	43.5	43.5	34.5	9.00	9.00	28	NA	NA	2.0	2.50	2.4	0	0.001	0.10	5.5E+02	1.9E-01
MW-19	RH3	0.083	0.32	9.0	0.30	0.187	43.5	43.5	34.5	9.00	9.00	28	NA	NA	2.0	2.50	2.2	0	0.001	0.08	6.6E+02	2.3E-01

Notes:

1. Sand pack porosity and corrected well radius values are applicable to slug tests where water level rise occurs within the screened or open portion of the well.
 2. Dimensionless parameters A and B are applicable to the case where $L_w < H$. Dimensionless parameter C is applicable to the case where $L_w = H$.
 3. R_e = the effective radial distance over which Y is dissipated.
 4. Slope of the best fit line to data, see Figures 1 through 3.
 5. cm/sec = centimeters per second
- RH = Rising Head; NA = Not Applicable

References:

- 1) Bouwer, H. and R.C. Rice, 1976. A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells. Water Resources Research, v. 12, pp. 423-428.
- 2) Bouwer, H., 1989. The Bouwer and Rice Slug Test - An Update. Ground Water, v. 12, No. 3, pp. 304 - 309.

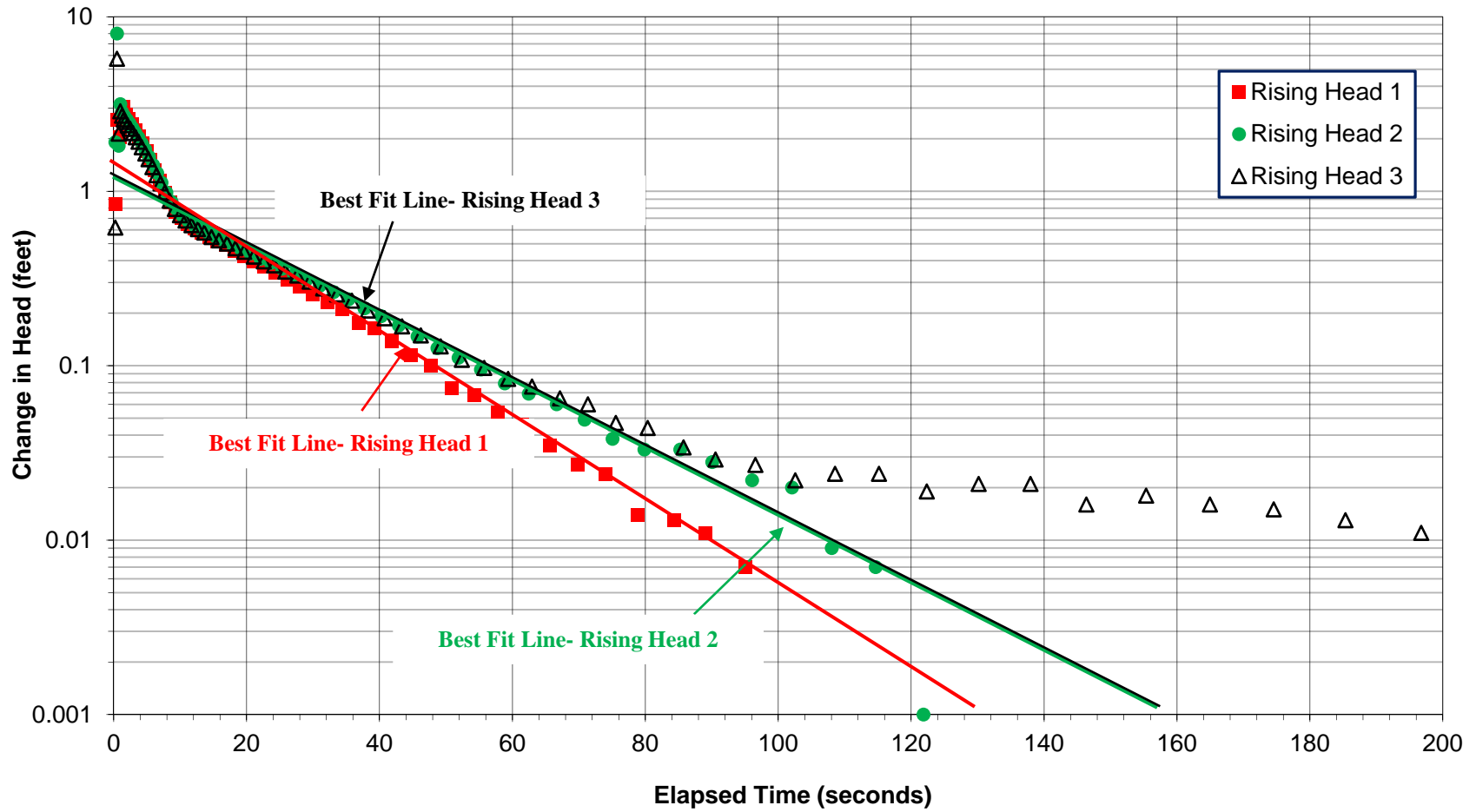



**Rising-Head Slug Test Plot
Monitoring Well MW-6**

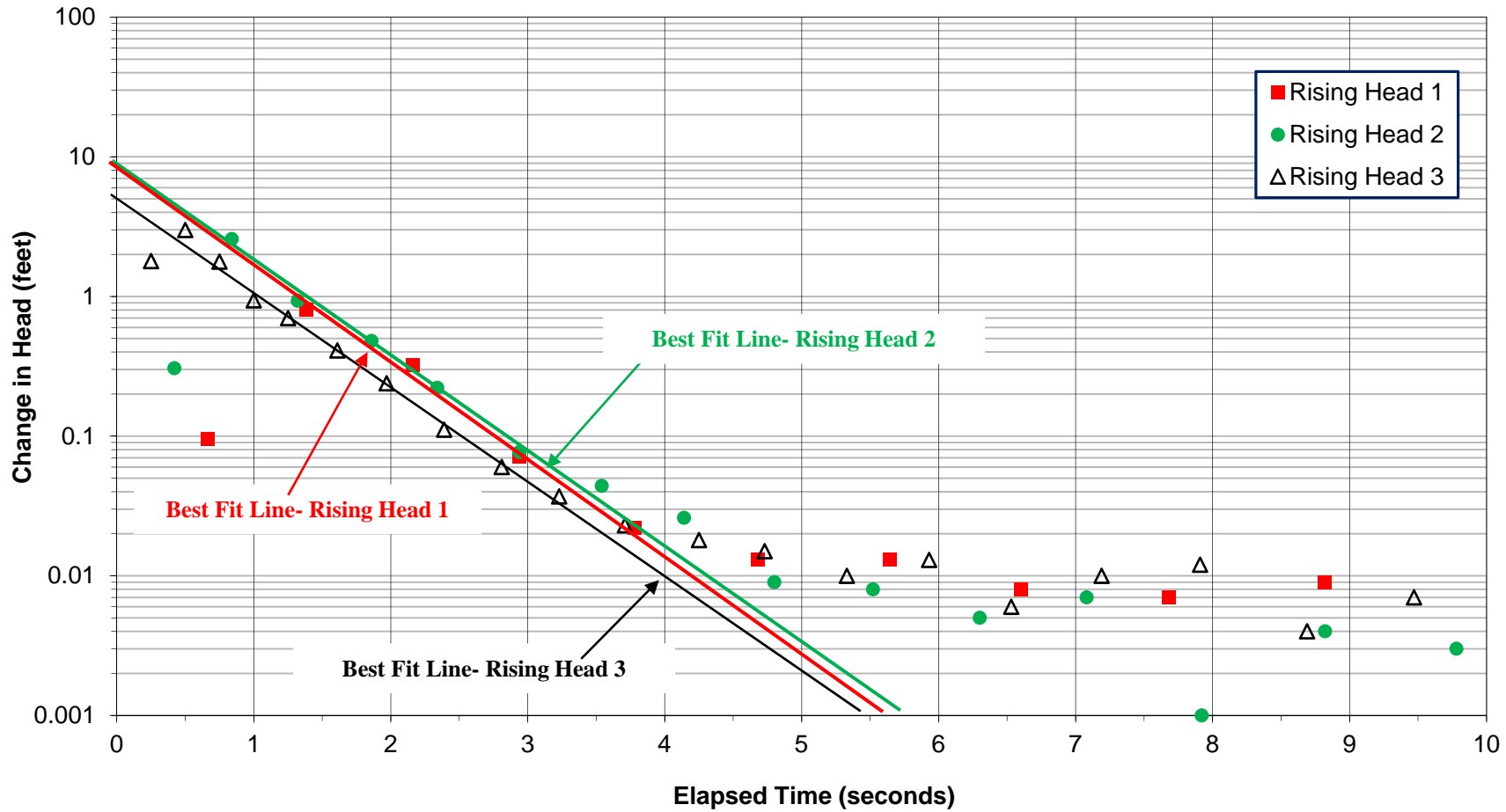
Airport Kwik Stop Site
Lone, Washington



Figure D-1



Rising-Head Slug Test Plot	
Monitoring Well MW-7	
Airport Kwik Stop Site Ione, Washington	
GEOENGINEERS 	Figure D-2



Rising-Head Slug Test Plot
Monitoring Well MW-9
Airport Kwik Stop Site
Ione, Washington


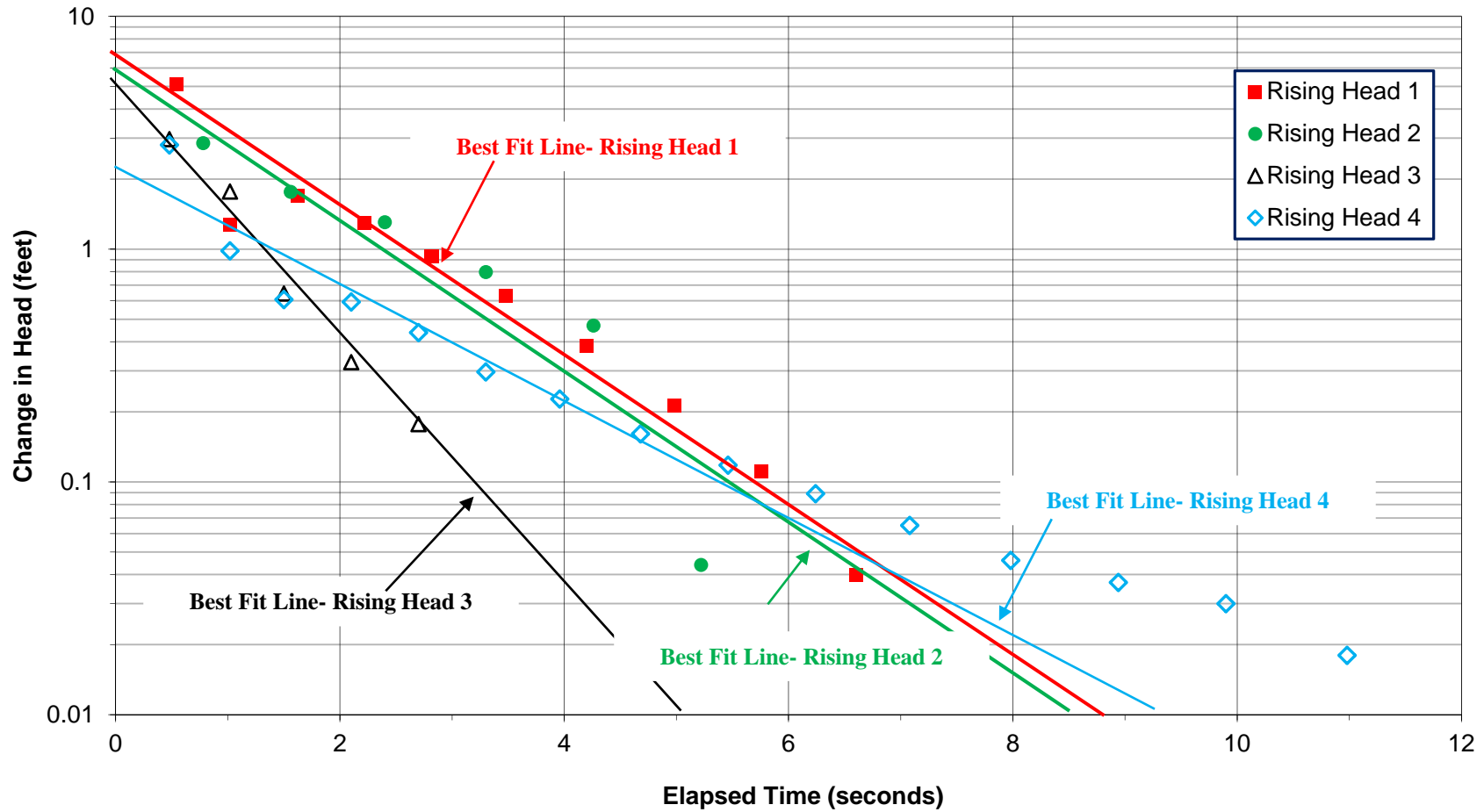
GEOENGINEERS 

Figure D-3

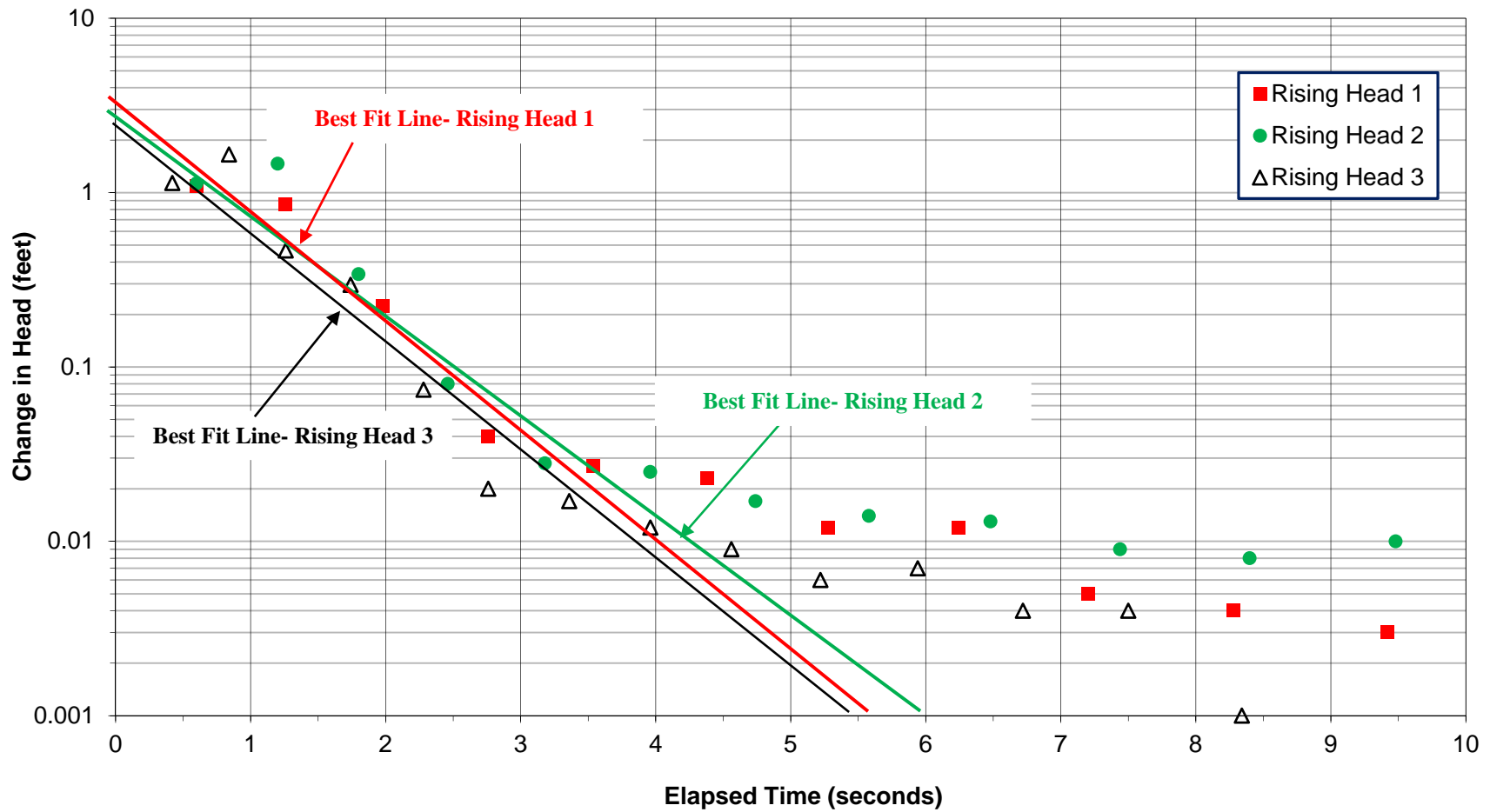


**Rising-Head Slug Test Plot
Monitoring Well MW-10**

Airport Kwik Stop Site
Ione, Washington



Figure D-4



**Rising-Head Slug Test Plot
Monitoring Well MW-19**

Airport Kwik Stop Site
Ione, Washington



Figure D-5