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Memorandum

To: Janet Goldsmith, Esq.

From: Jon Philipp, P.G., C.Hg. and Paul Horton, P.G., C.Hg.

cc: Tom Berliner, Esq., Mark Blum, Esq., Stanley Powell, Esq.

Date: May 21, 2010

Re: Pumping Zone of Influence Clarified Relative to DEIR Claims.

In our 2007 and 2008 Technical Reports, SGI concluded that the irrigation well pumping Zone of Influence (ZOI) extended approximately 1,000-feet upstream of the New Well location. This was based on measured groundwater drawdown in surrounding monitoring wells and in piezometers placed in the Big Sur River when both irrigation wells were pumping at a combined rate of approximately 5 cfs. The Draft Environmental Impact Report (DEIR) prepared by PBS&J suggests that our data actually shows that the ZOI extends as much as 1,600-feet upgradient of the New Well Location. The only evidence used to support the extended ZOI is Figure 3-5 of our 2008 report suggesting:

> "… during the 2007 study (Critical Dry irrigation season conditions), at distances of up to about 600 feet upstream of the expected ZOI, the groundwater gradient became more negative when both well [sic] were pumping and dropped from about -0.31 ft/ft to -0.36 ft/ft (Figure 3-5 SGI 2008)". (DEIR, p. 4.2-60).

There are several issues with the analysis performed and the conclusions reached related to the data included on Figure 3-5. These will be addressed below.

Change in Gradient

Figure 3-5 (included as Exhibit 1) does show a reduction in gradient at the P5 location on the order PBS&J suggested in their analysis included in the DEIR. PBS&J assumed that the reduction in gradient was the result of pumping. In fact, at the point that both irrigation wells started pumping together at approximately 5 cfs (September 28, 2007), both groundwater and surface water elevation trends at the P5 and P6 locations INCREASED (see attached Exhibits 2 through 5) relative to the prepumping groundwater and surface water trends. Because the surface water elevations at both locations nearly stabilized (Exhibits 3 and 5) while the groundwater elevations continued to decline (Exhibits 2 and 4), the net effect was an increase in the negative gradient between the River and the underlying alluvial aquifer. The near stabilization of surface water levels is a strong argument that pumping activities were not the cause of the gradient change. It is most likely that surface water levels, which were declining following a rain event prior to the start of the pumping, leveled off as the River returned to baseflow conditions. The expected lag between the leveling out of surface water conditions relative to groundwater conditions (i.e. surface water leveled out before the groundwater

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did, thus the gradient became more negative) resulted in an increased negative gradient which PBS&J attributed to pumping.

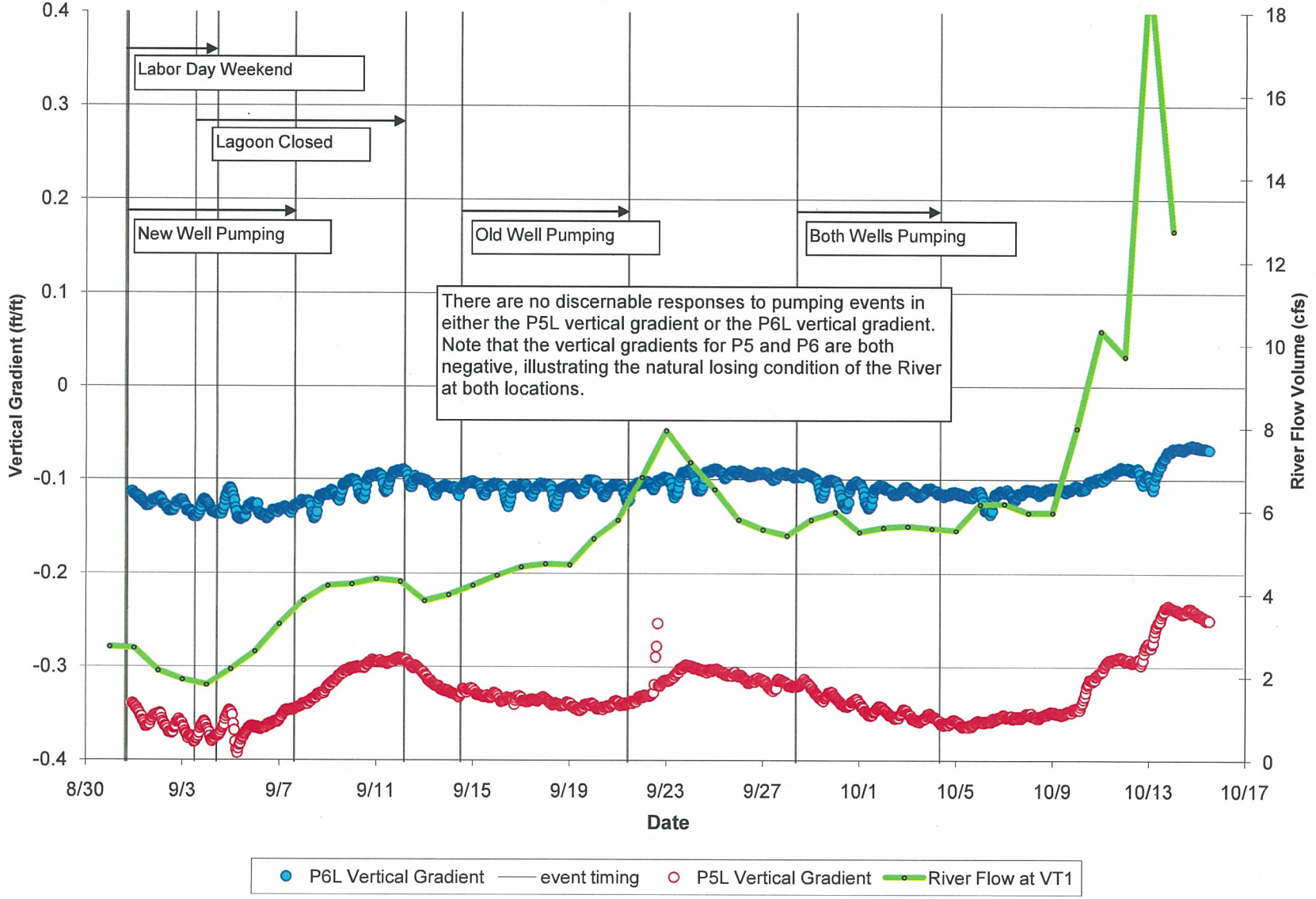
Extent of ZOI

It was the increase in negative gradient at the P5 location that led PBS&J to the conclusion that the ZOI, which we identified as within a radius of 1,000-feet upgradient of the New Well location, was potentially an additional 600-feet further upgradient. The P5 location is approximately 90-feet upgradient of the SGI identified 1,000-ft ZOI. The P6 location, which on Figure 3-5 showed only a very slight increase in negative gradient, is approximately 275-feet upgradient of the 1,000-ft ZOI. There were no sensors beyond P6 to provide data regarding a change in gradient. Therefore, even if the change in gradient at P6 could be attributed to pumping of the El Sur Ranch wells, there does not appear to be a basis to extend the ZOI an additional 600 feet, which is 325 feet farther than the most distant piezometer location.

Conclusion

The conclusion is that the increase in negative gradient at the P5 and P6 locations was the result of natural River hydraulics in response to a rainfall event, as opposed to a reaction to ESR irrigation well pumping. The PBS&J assertion that the gradient between surface water and groundwater became more negative at the P5 location when the pumps were turned on is correct, but coincidental (unlike at the piezometer locations within the ZOI). The surface water and groundwater hydrographs at both the P5 and P6 locations show increases in water levels, which is not indicative of pumping related effects, but of natural hydraulic effects that took place at the same time as the onset of pumping.

Exhibit 1/Figure 3-5
P6L and P5L Vertical Gradient Across Riverbed
El Sur Ranch
Big Sur, California



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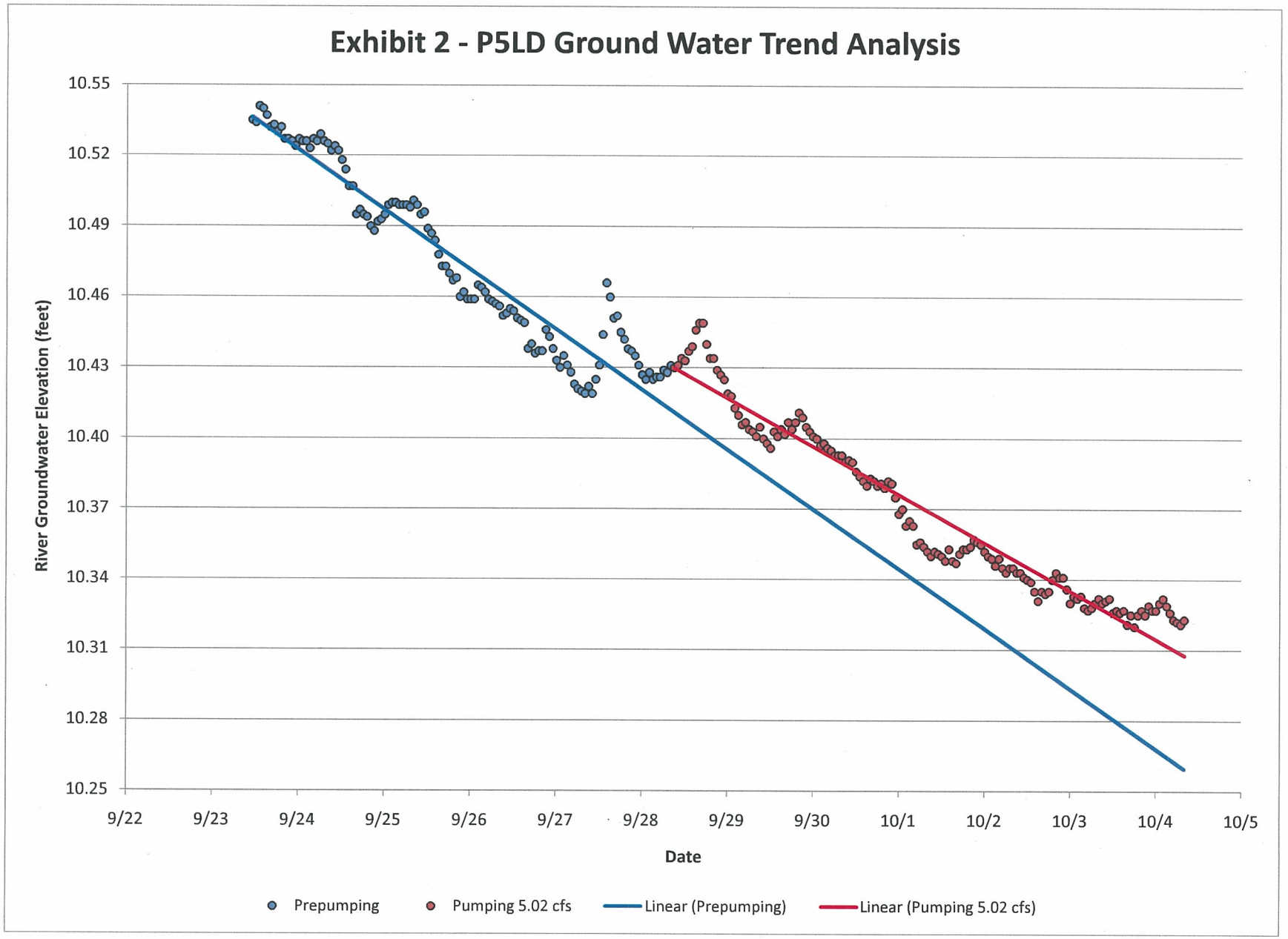
Exhibit 2 - P5LD Ground Water Trend Analysis
River Groundwater Elevation (feet)
10.55
10.52
10.49
10.46
10.43
10.40
10.37
10.34
10.31
10.28
10.25
9/22
9/23
9/24
9/25
9/26
9/27
9/28
9/29
9/30
10/1
10/2
10/3
10/4
10/5
Date
Prepumping
Pumping 5.02 cfs
Linear (Prepumping)
Linear (Pumping 5.02 cfs)

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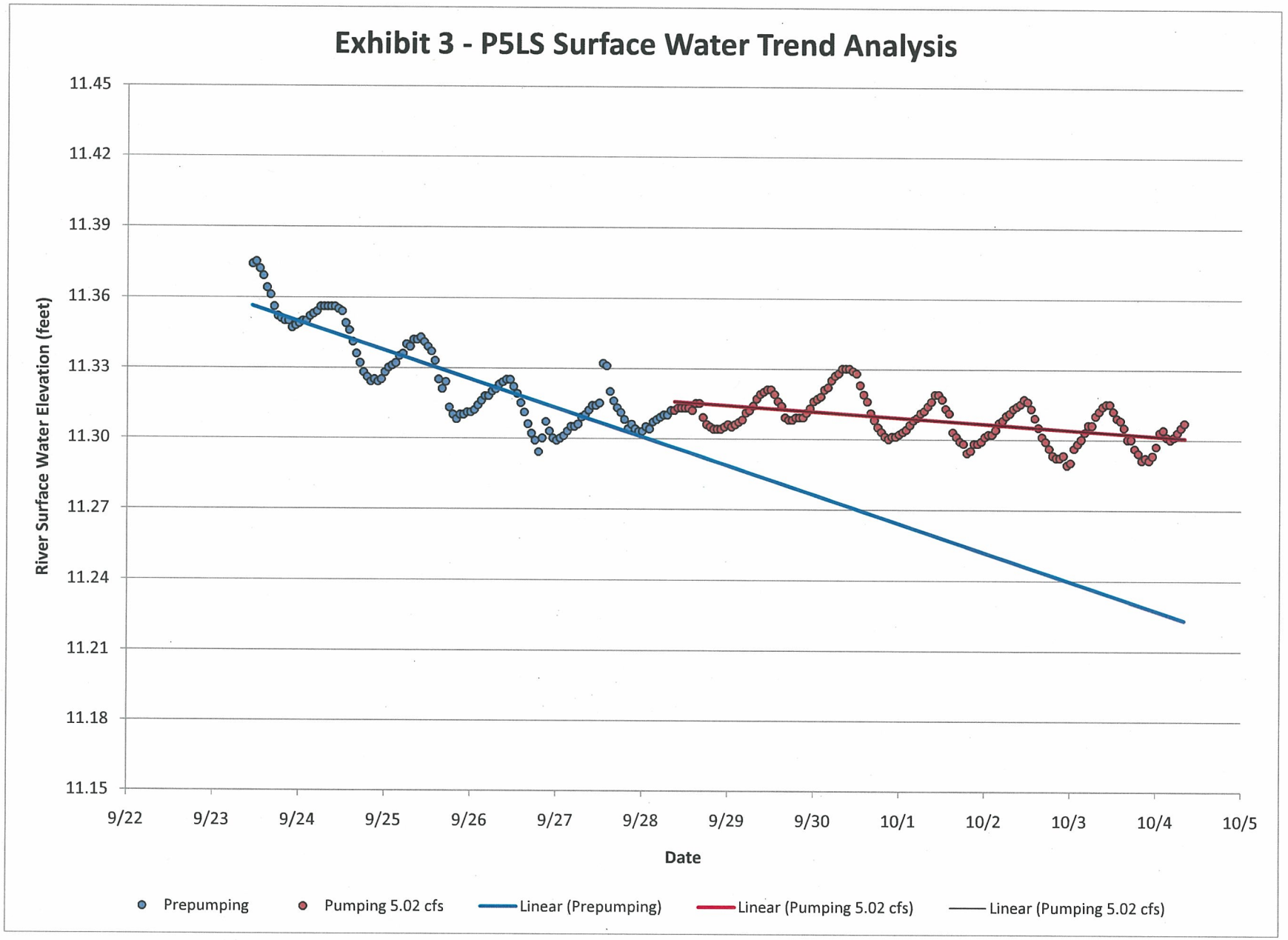
Exhibit 3 - P5LS Surface Water Trend Analysis
River Surface Water Elevation (feet)
11.45
11.42
11.39
11.36
11.33
11.30
11.27
11.24
11.21
11.18
11.15
9/22
9/23
9/24
9/25
9/26
9/27
9/28
9/29
9/30
10/1
10/2
10/3
10/4
10/5
Date
Prepumping
Pumping 5.02 cfs
Linear (Prepumping)
Linear (Pumping 5.02 cfs)
Linear (Pumping 5.02 cfs)

ESR--7

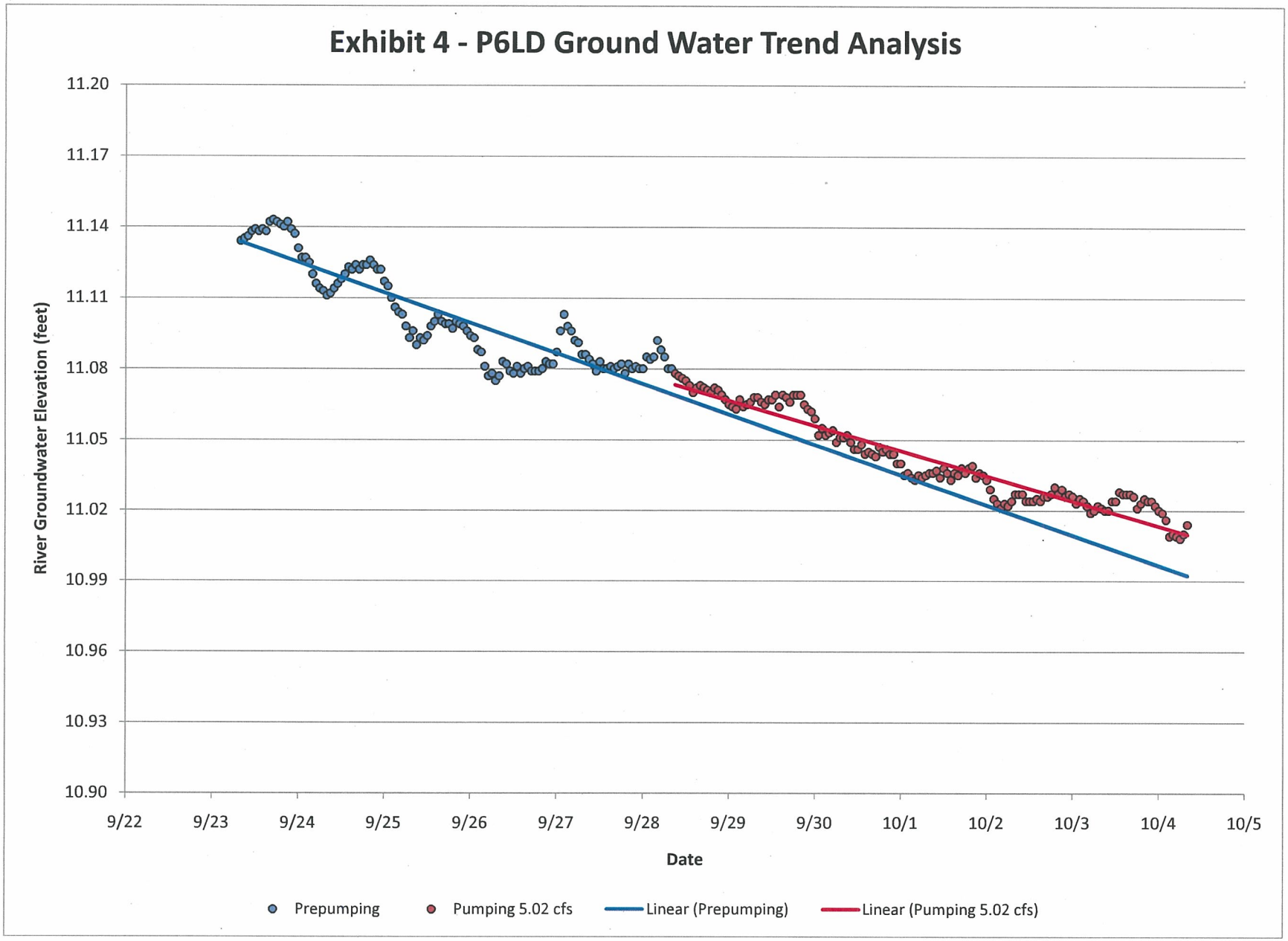
Exhibit 4 - P6LD Ground Water Trend Analysis
River Groundwater Elevation (feet)
11.20
11.17
11.14
11.11
11.08
11.05
11.02
10.99
10.96
10.93
10.90
9/22
9/23
9/24
9/25
9/26
9/27
9/28
9/29
9/30
10/1
10/2
10/3
10/4
10/5
Date
Prepumping
Pumping 5.02 cfs
Linear (Prepumping)
Linear (Pumping 5.02 cfs)

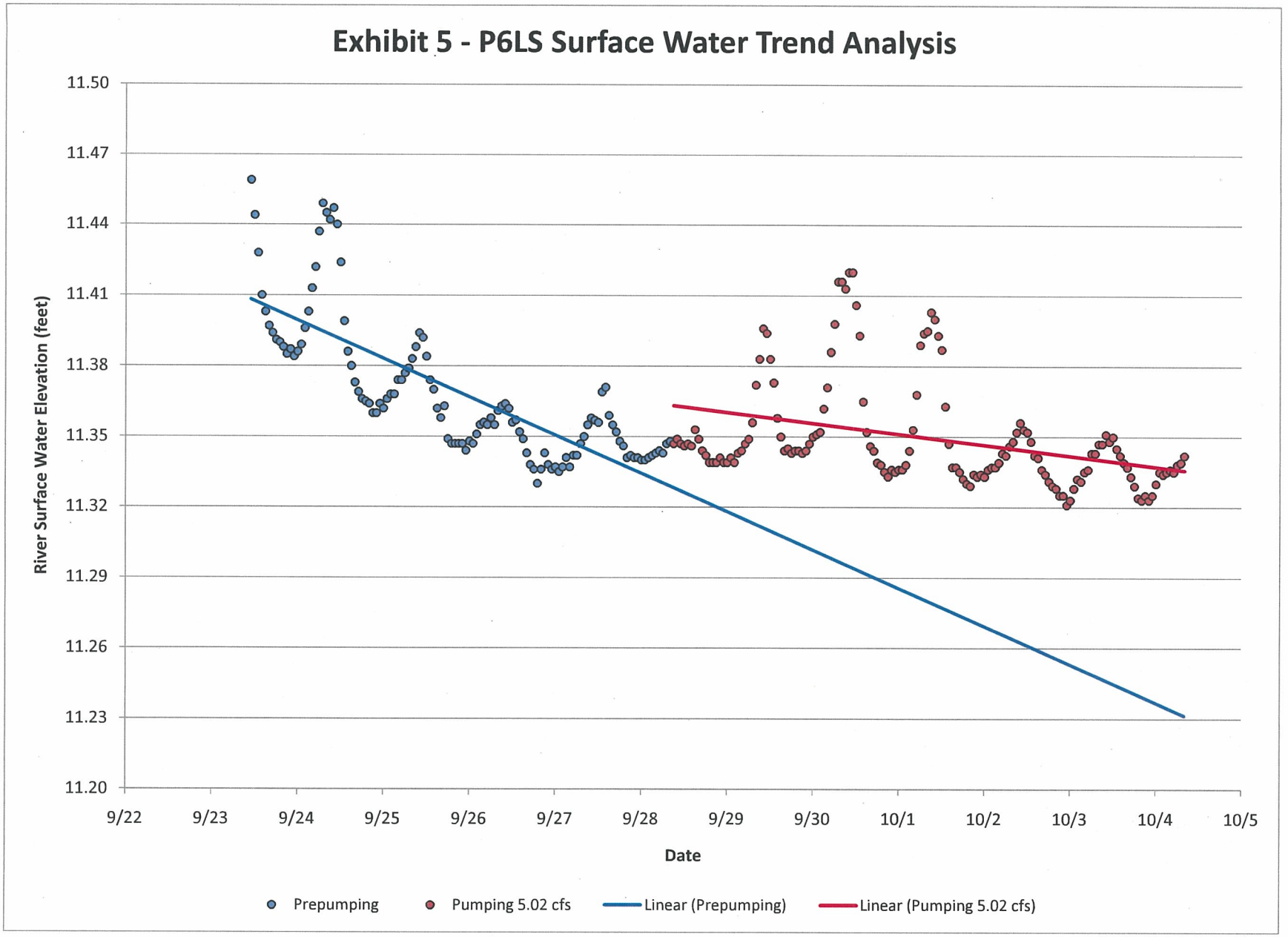
Exhibit 5 - P6LS Surface Water Trend Analysis
River Surface Water Elevation (feet)
11.50
11.47
11.44
11.41
11.38
11.35
11.32
11.29
11.26
11.23
11.20
9/22
9/23
9/24
9/25
9/26
9/27
9/28
9/29
9/30
10/1
10/2
10/3
10/4
10/5
Date
Prepumping
Pumping 5.02 cfs
Linear (Prepumping)
Linear (Pumping 5.02 cfs)