

Dispersion and Travel Time in the State Water Project

July 27th 2011

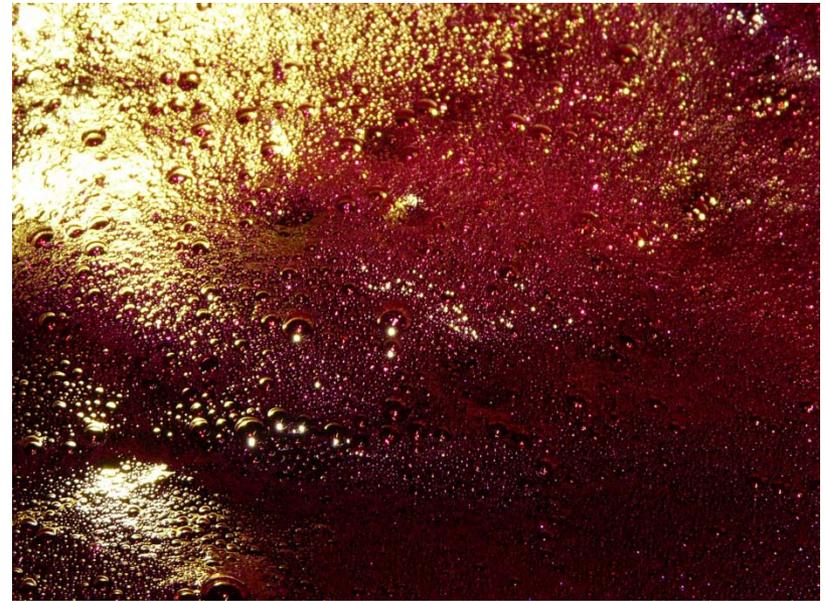
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Start with a question, or two.

- * What are typical dispersion rates of particles in the State Water Project?
- * What are typical travel times of waters in the State Water Project?

How did we answer these questions?



Smart Oranges



Dye Study: S.C.U.F.A.



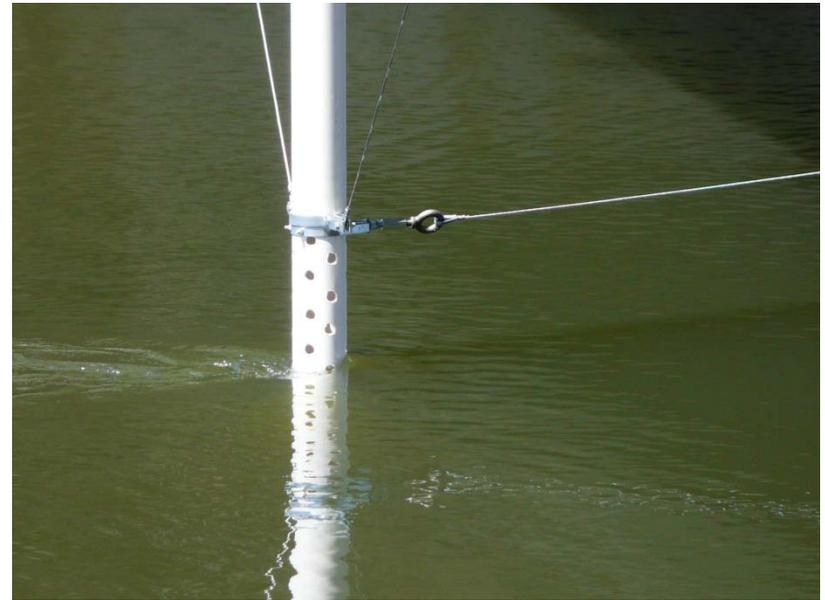
Dye Study: Float



Dye Study: Standpipes



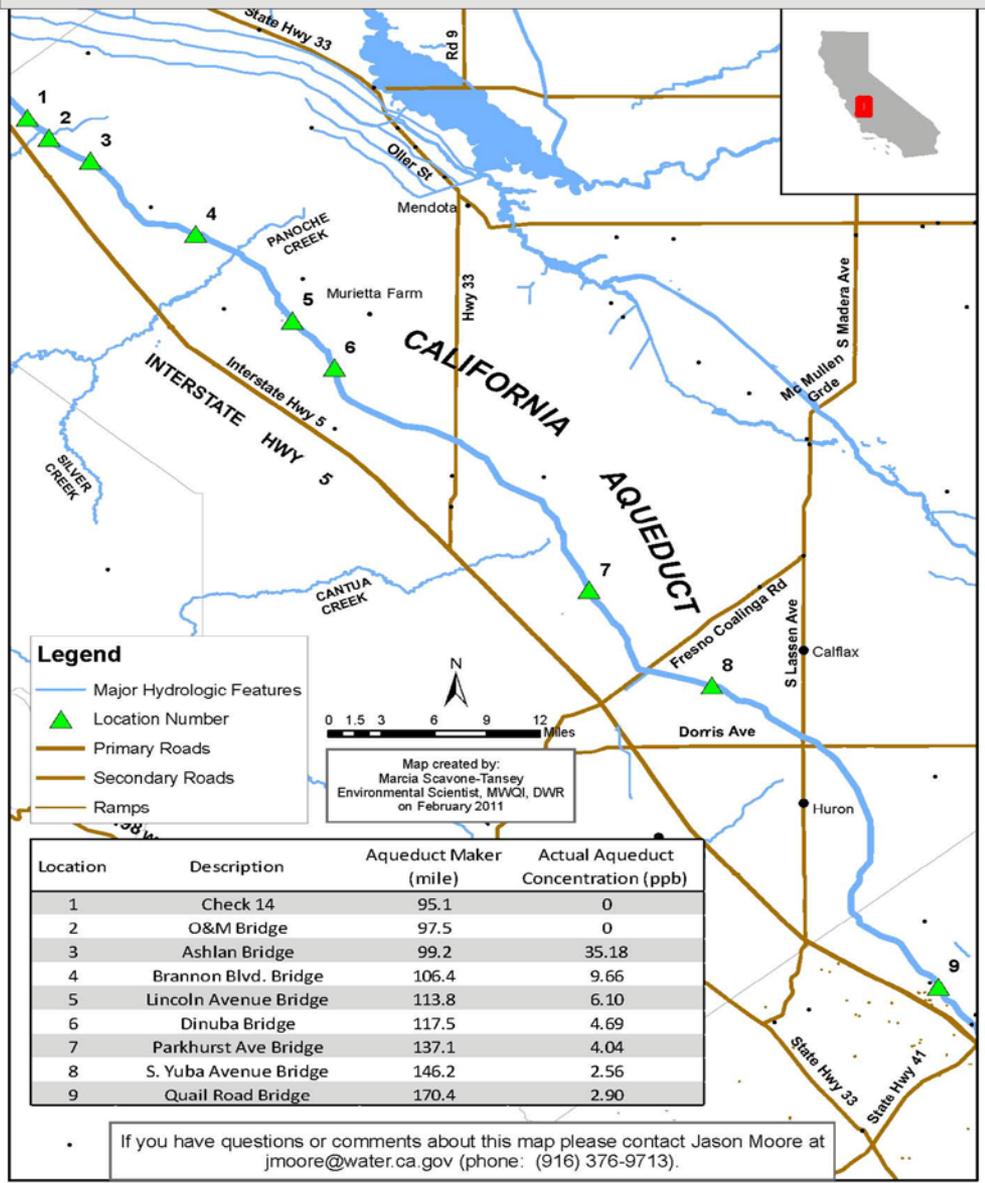
Dye Study: Standpipes



Dye Study: Standpipe and SCUFA



MAXIMUM DETECTED RHODAMINE WT CONCENTRATION ALONG THE CALIFORNIA AQUEDUCT



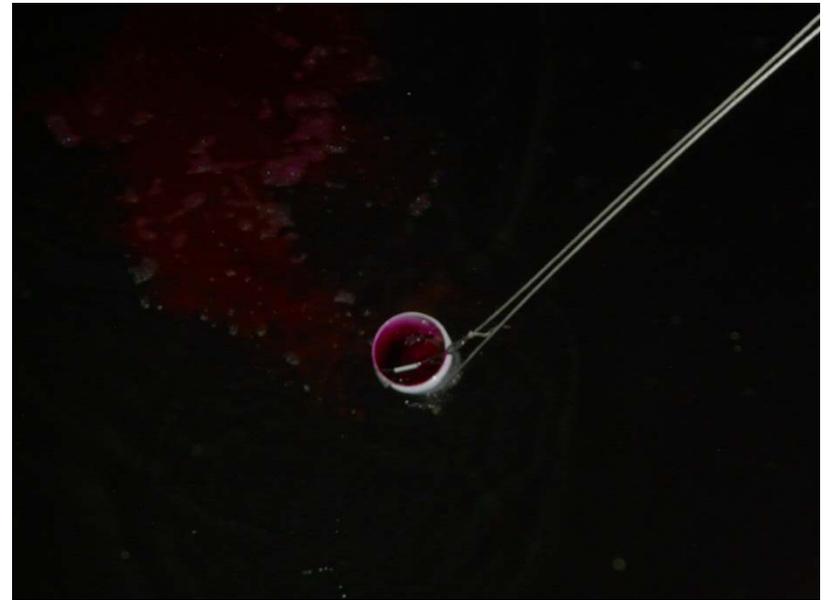
Dye Study: Dye Release



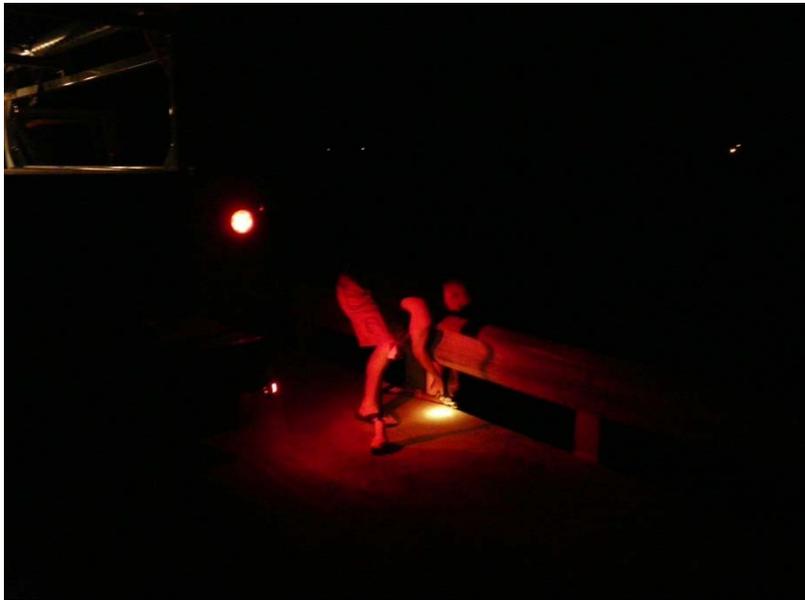
Dye Study: Dye Release



Dye Study: Dye Release



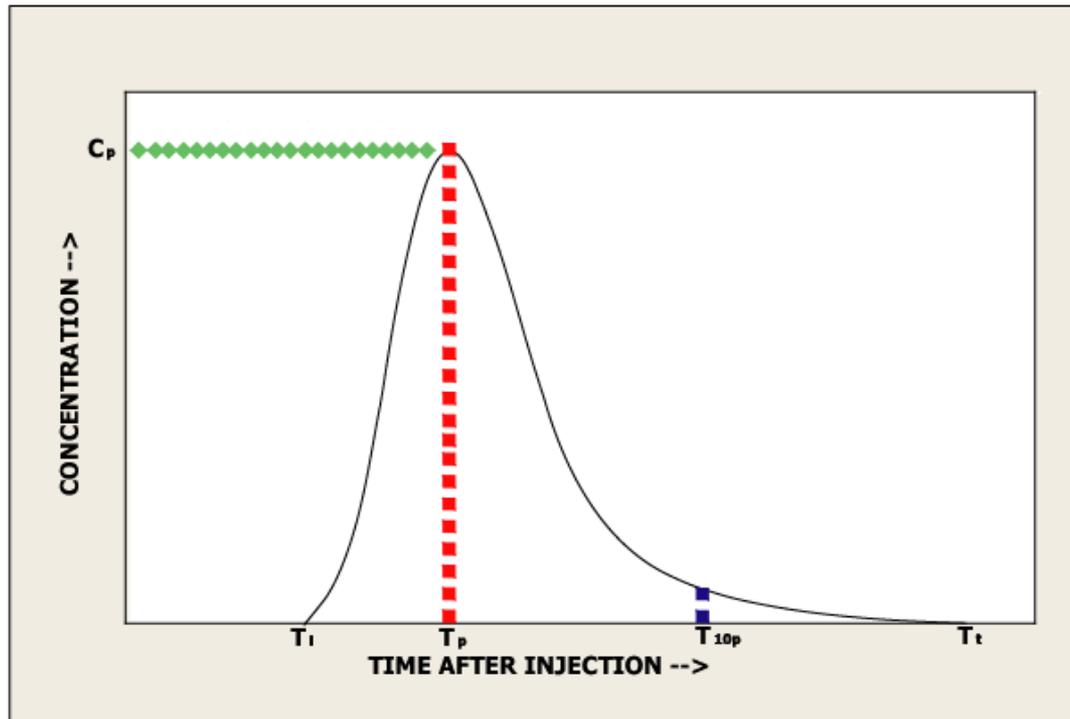
Dye Study: SCUFA Leapfrog



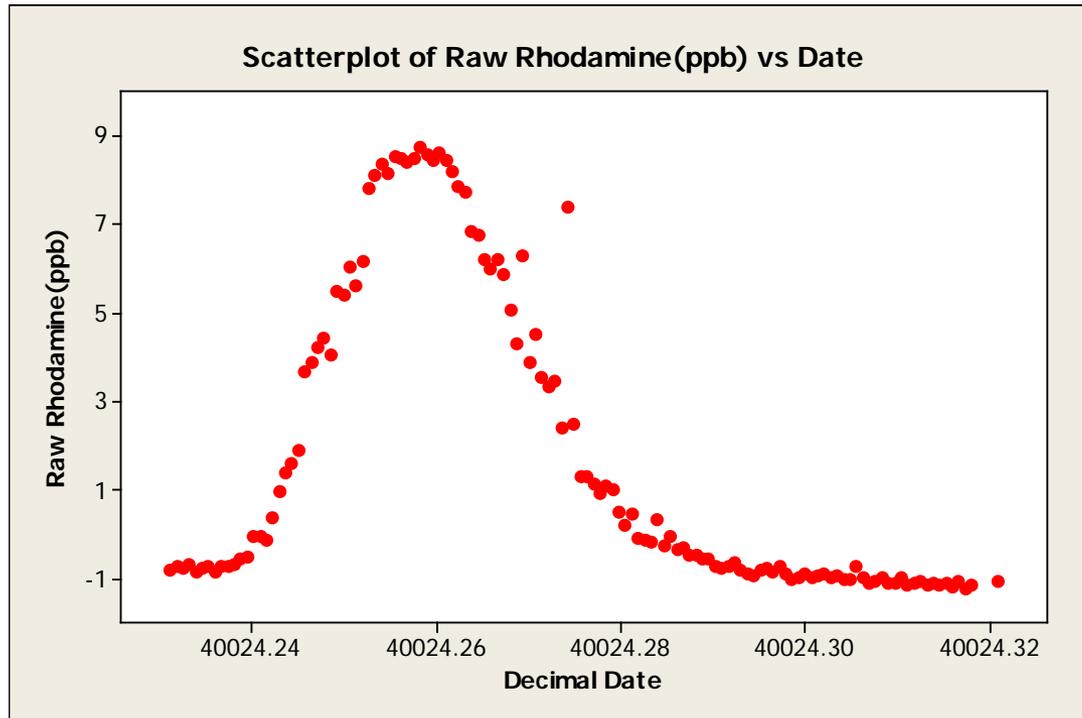
Dye Study: Field Observations



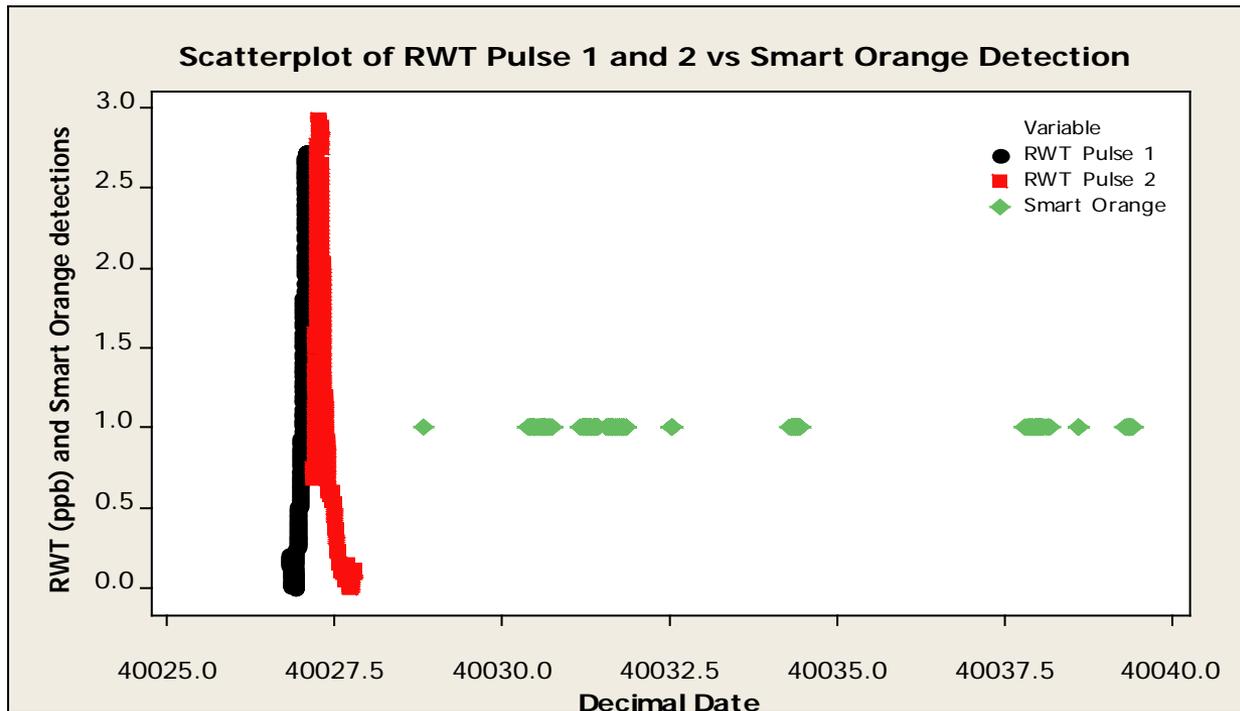
Dye Study: Data Requirements



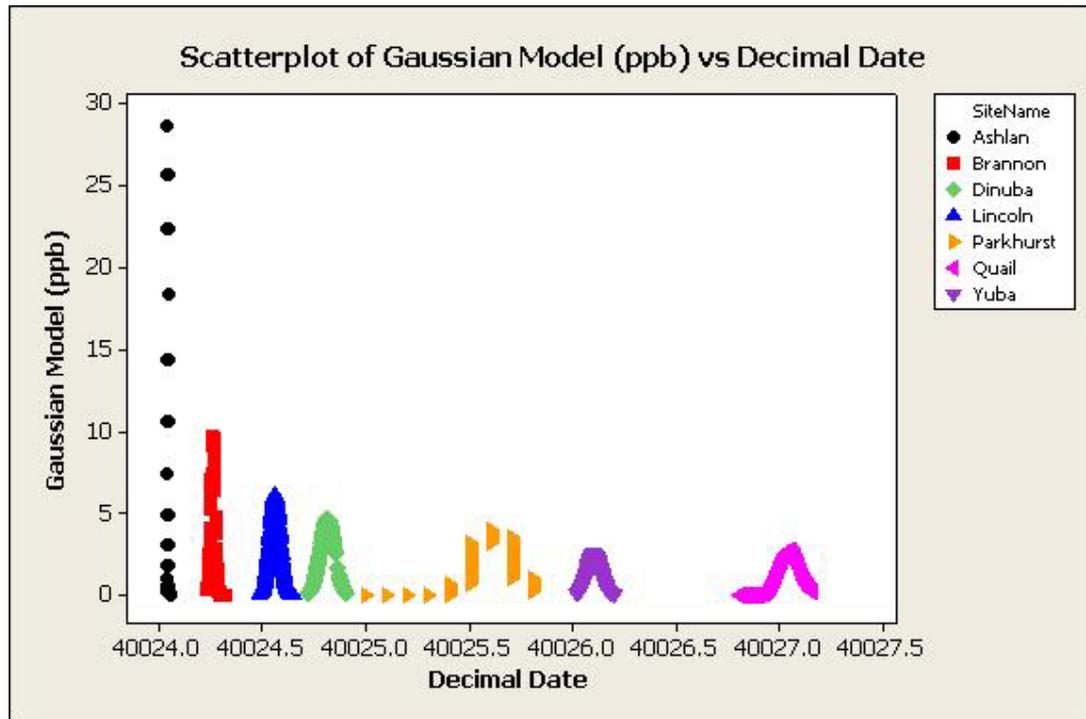
Dye Study: RWT Data



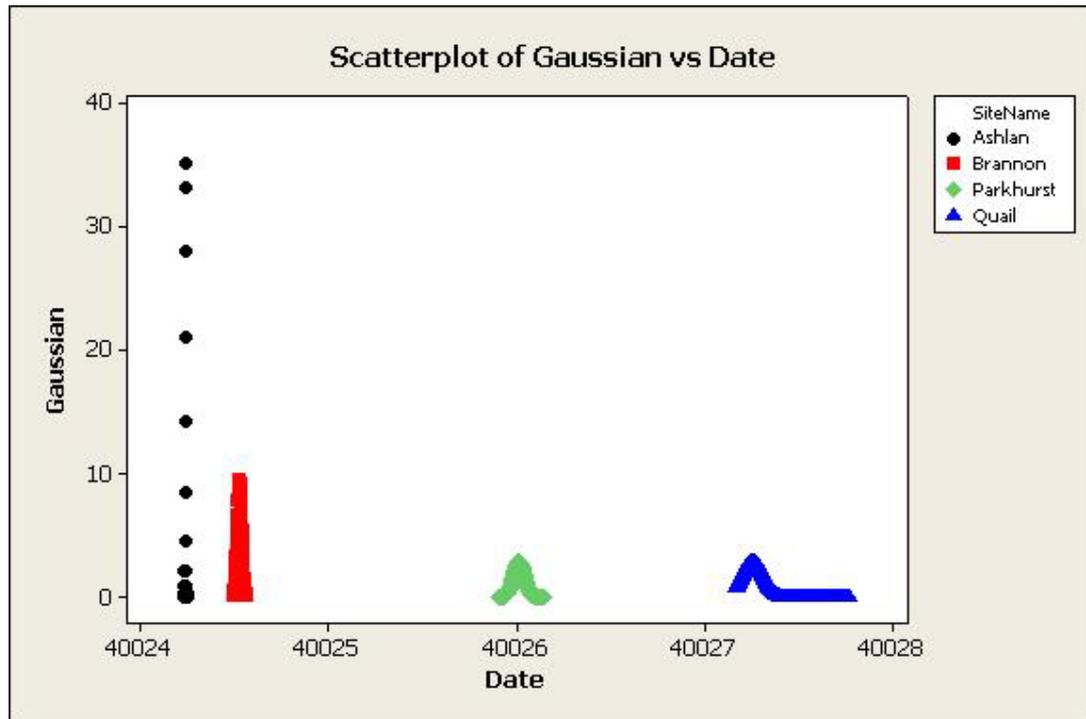
Dye Study vs. Smart Oranges



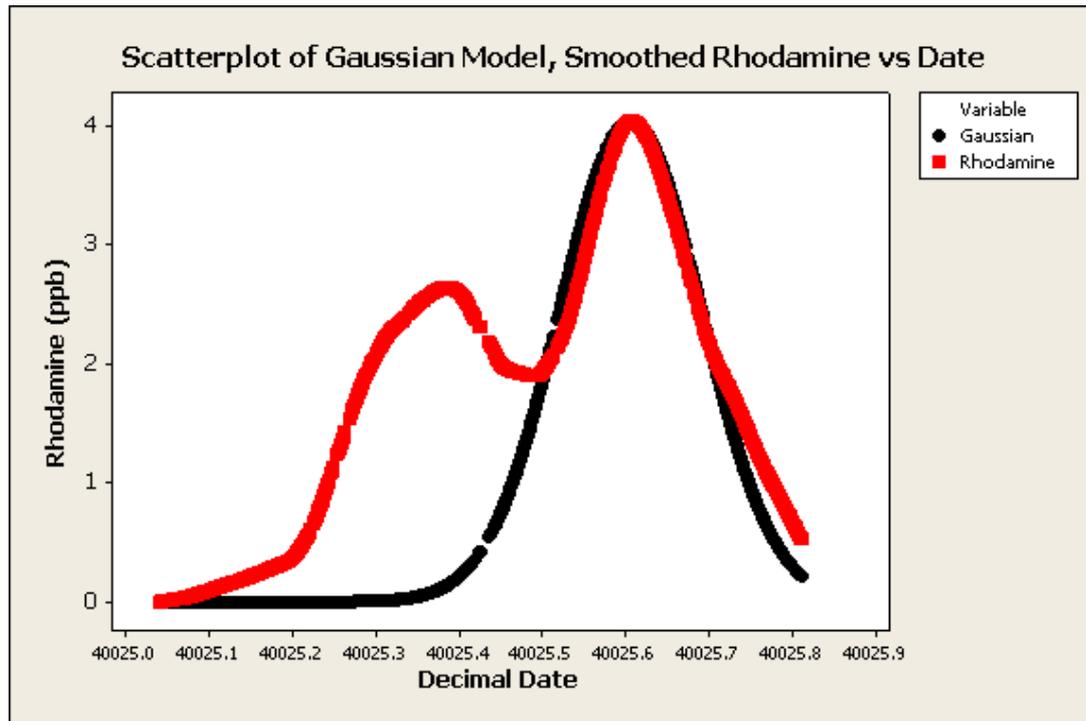
Dye Study: RWT Pulse 1



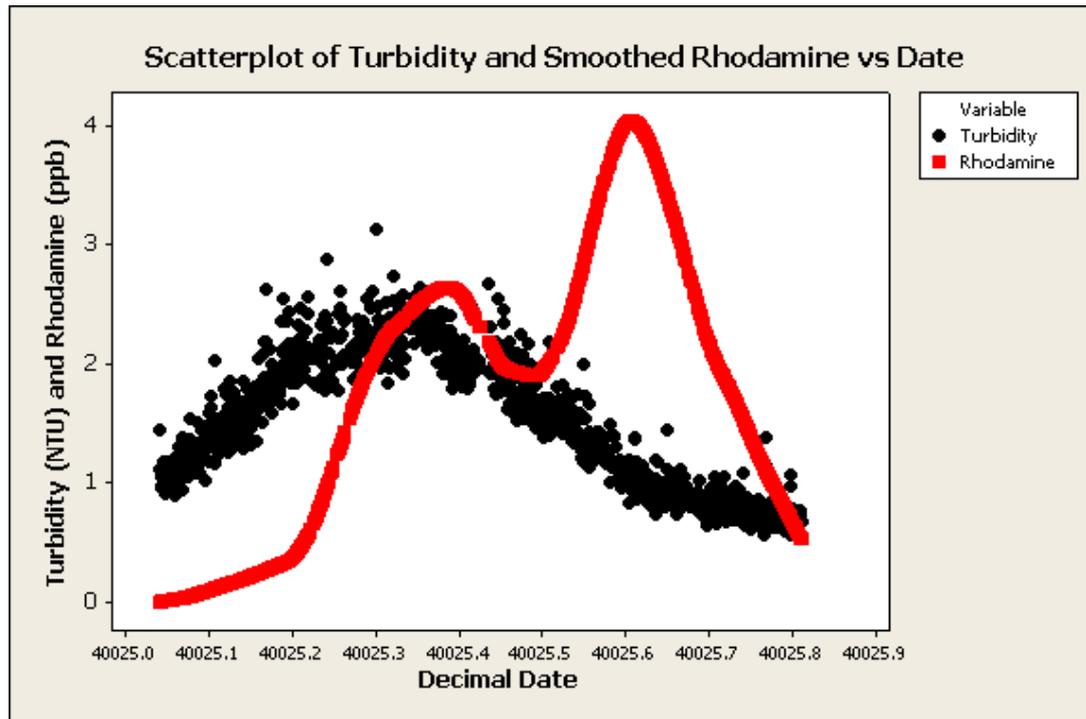
Dye Study: RWT Pulse 2



Dye Study: Reverse Flow in SWP



Dye Study: Reverse Flow in SWP



Dye Study: Field Observations



Dye Study: Conclusions, Travel Time

Variable	N	Mean	Std. Deviation	SE Mean	95% Confidence Interval
Velocity	11	1.500 ft/s	0.237 ft/s	0.072	(1.341, 1.660)

Dye Study: Conclusions, Dispersion Rate

Variable	N	Mean ft/s	Std. Deviation ft/s	SE Mean ft/s	95% Confidence Interval ft/s
Dispersion Rate	8	0.323	0.134	0.047	(0.211, 0.435)

Questions?

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