

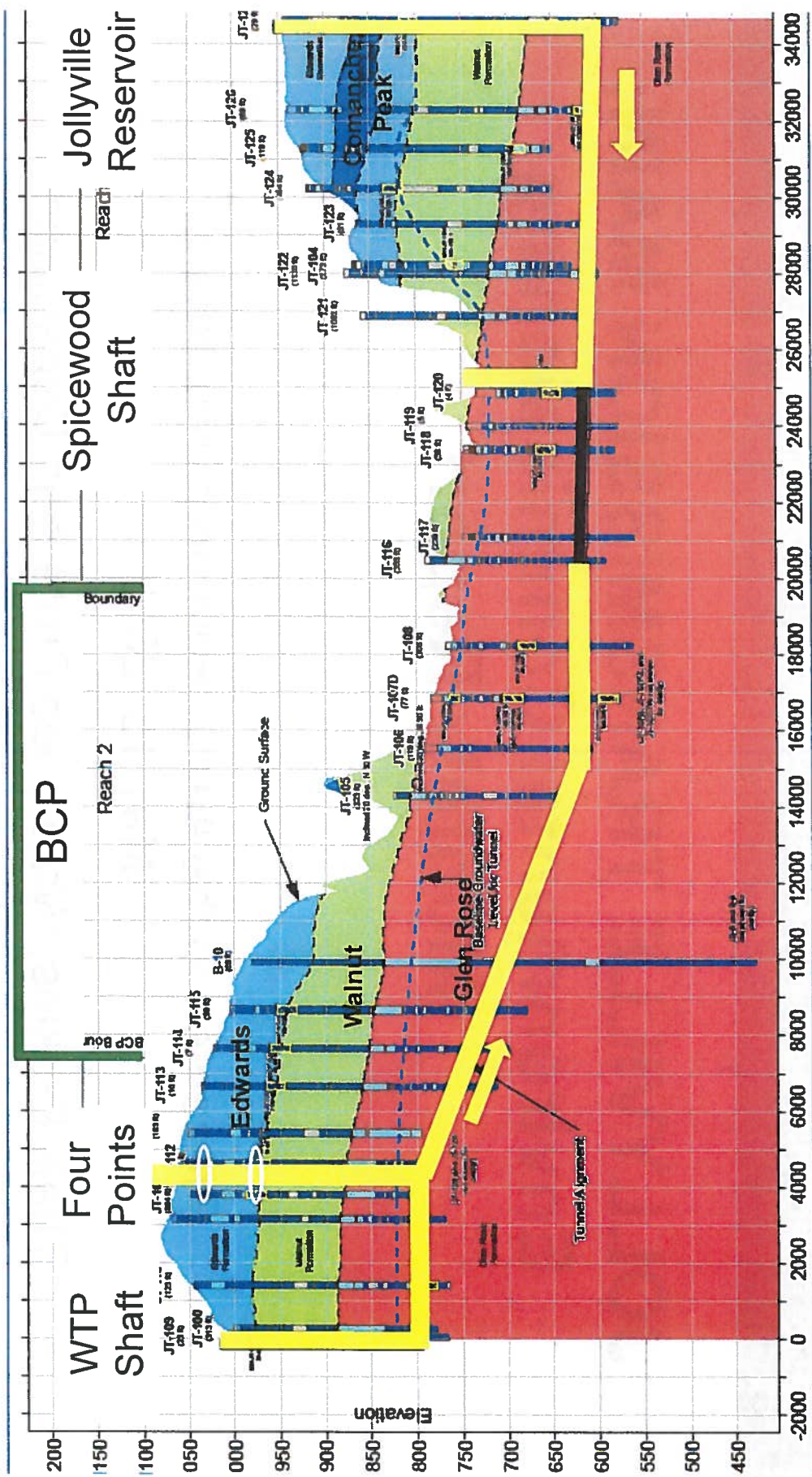


JOLLYVILLE TRANSMISSION MAIN: Environmental Commissioning Monthly Report

**Presented to the Austin Environmental Board
May 15, 2013**

**Thais Perkins, Watershed Protection Department
David Johns, Watershed Protection Department**

= progress





Environmental Commissioning Activities - JVTM

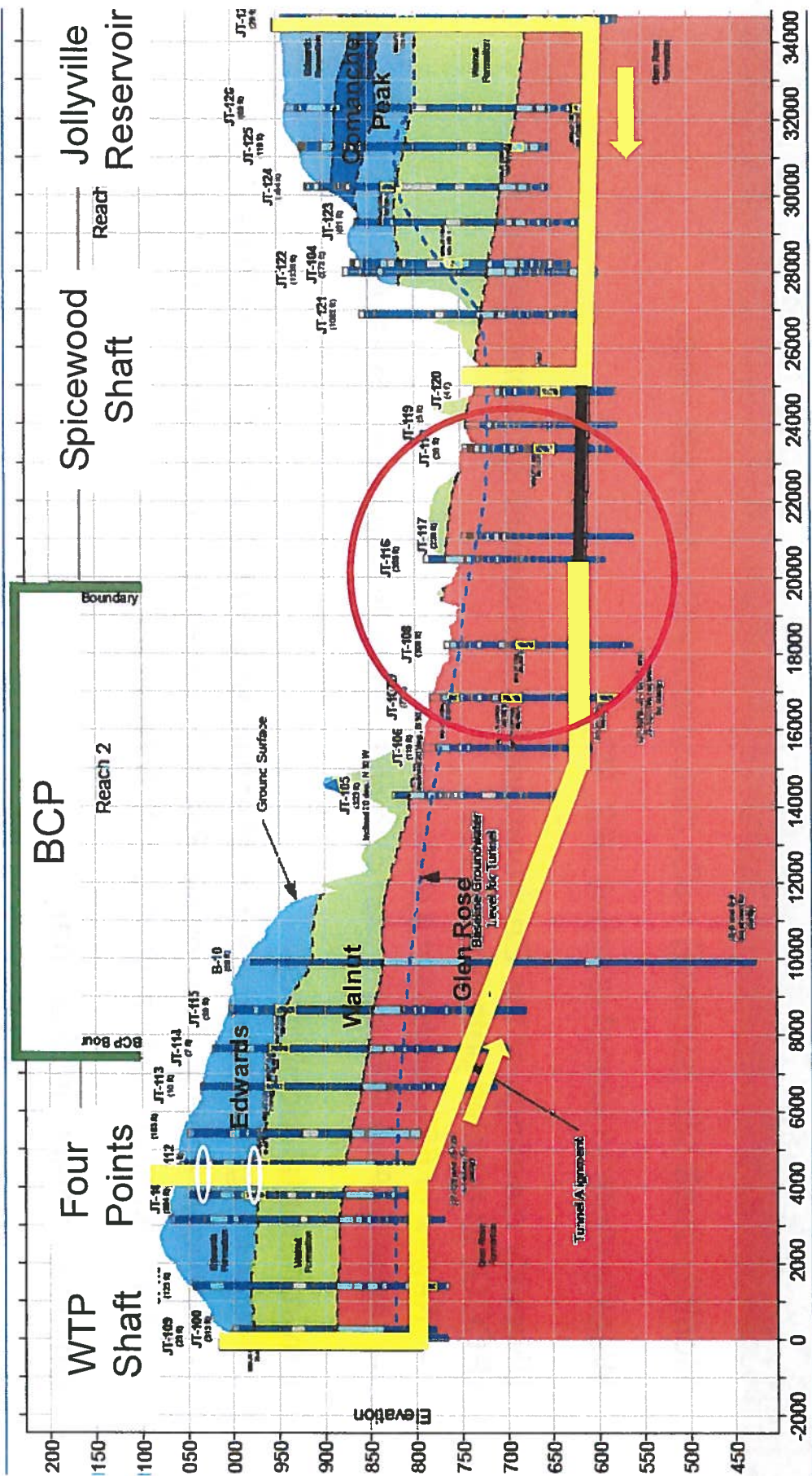
- Monthly shaft site (surface) visits concurrent with plant site visits
- Weekly visits to tunnel reaches (R2, R3)
- Biweekly meetings of the Environmental Commissioning Coordination Group (ECCG) to resolve potential issues
 - Review of 60% landscaping plans
 - Awaiting Four Points site plan correction/stockpile stabilization for review
- Environmental Monitoring
 - Monitoring Schedule remaining at enhanced level for Reach 2 (weekly/biweekly)
 - Schedule abating at completed Reach 3, Spicewood Shaft; sampling monthly
 - Completed JVTM monitoring quarterly report #4

- Environmental Cost Summary

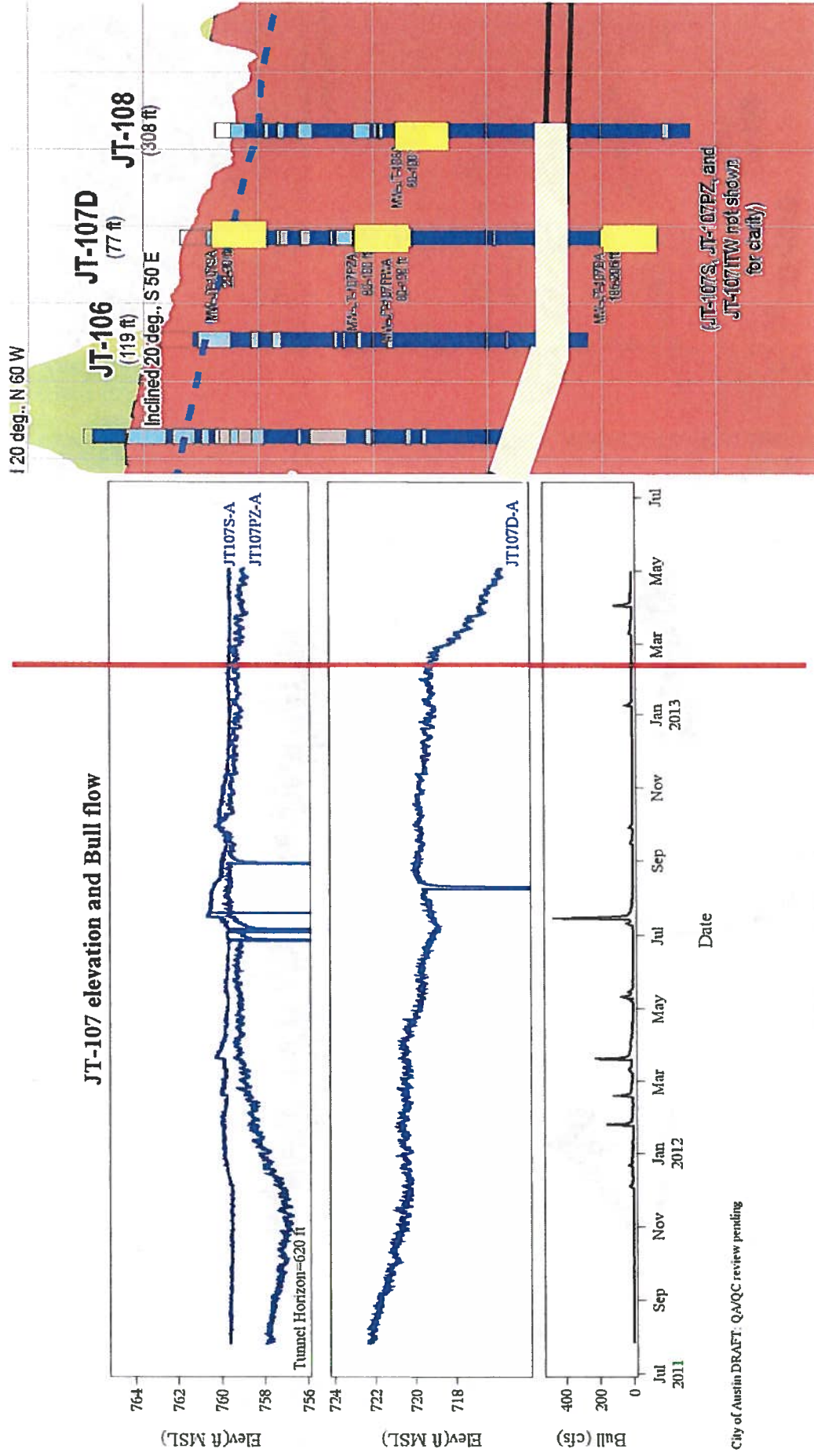
Initial INTERA Contract Amount	\$	1,713,814
Total Amount Billed to Date	\$	1,398,898
Total Remaining	\$	314,916

Tunnel Exiting BCP

= progress



Tunnel passes 107 cluster 2/13/13

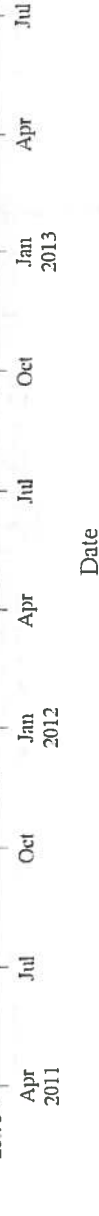
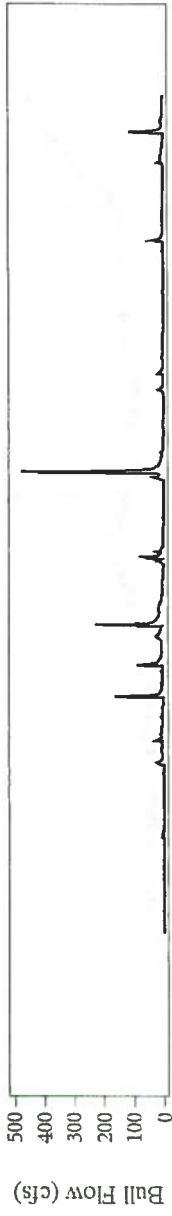
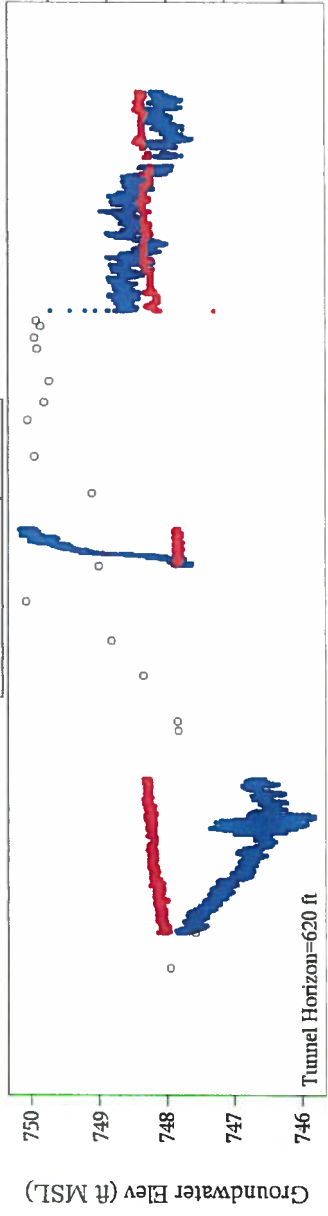


City of Austin DRAFT: QA/QC review pending

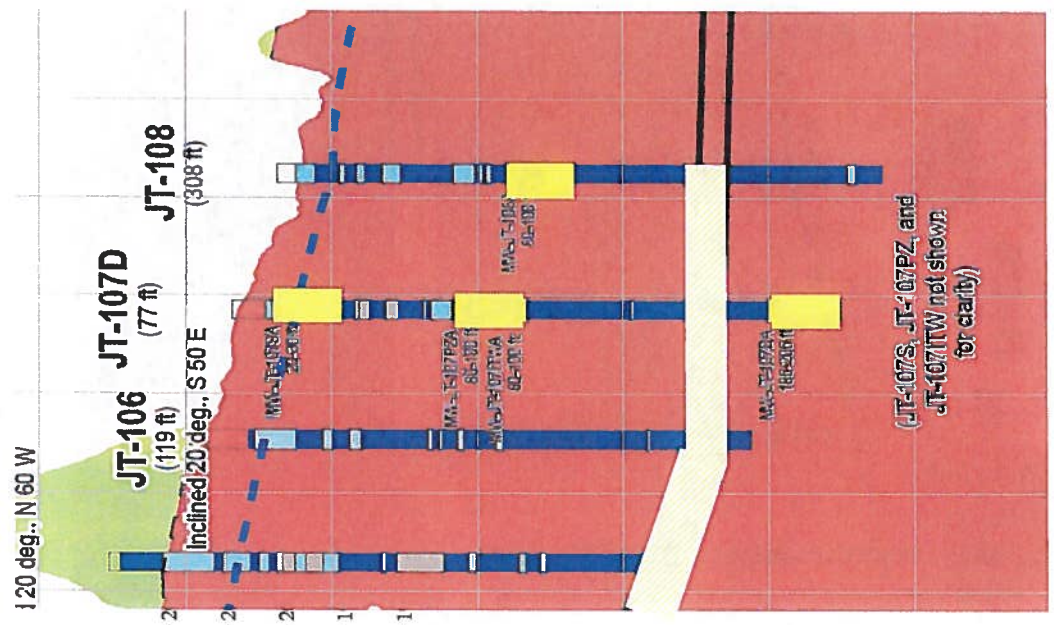
Decline (~7 feet) in deepest well as tunnel passes; possible small decline in PZ-A likely to be attributable to climatic conditions (drought)

Well JT-108A, Troll

• GW Elevation • Temp ○ E-Line



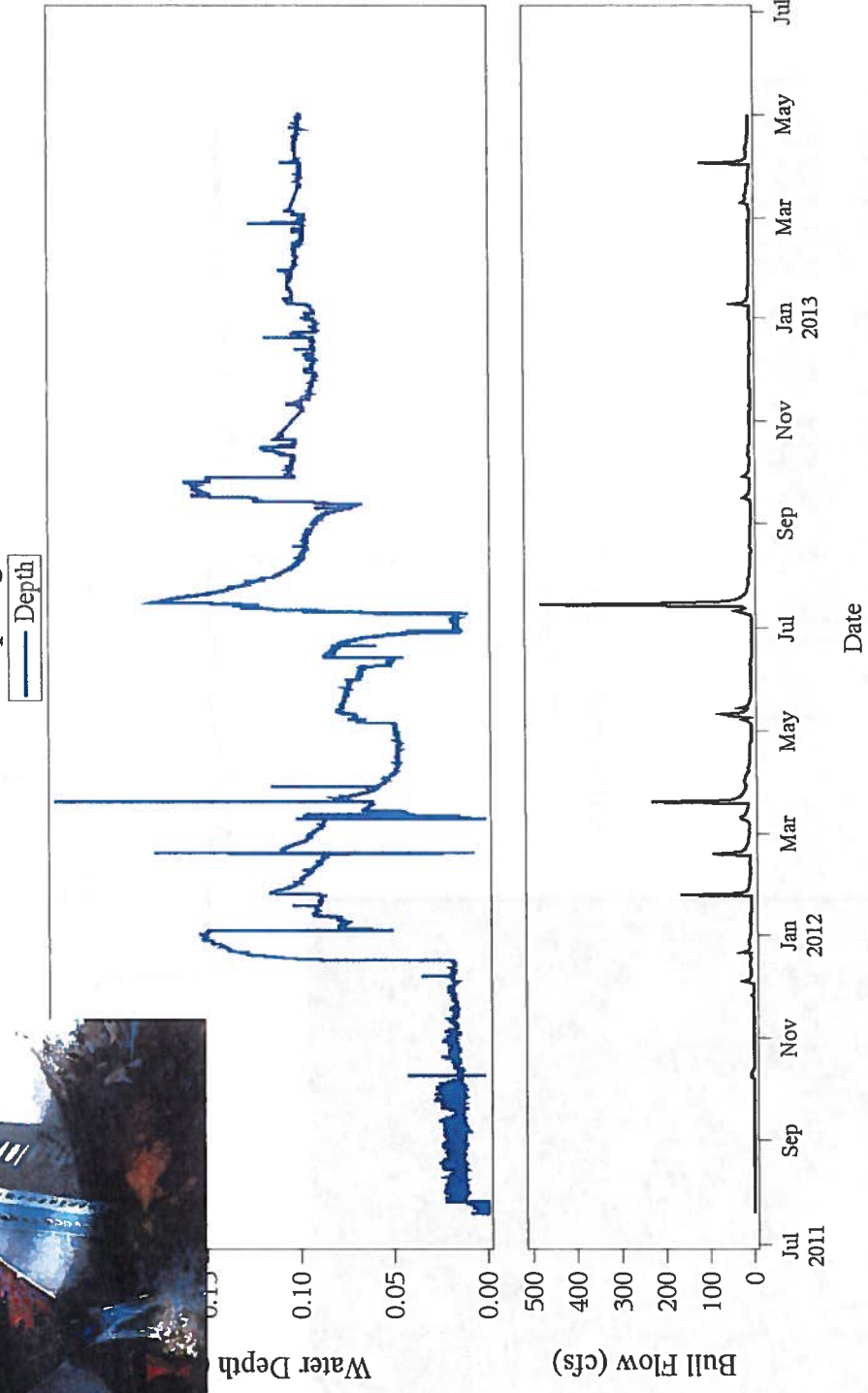
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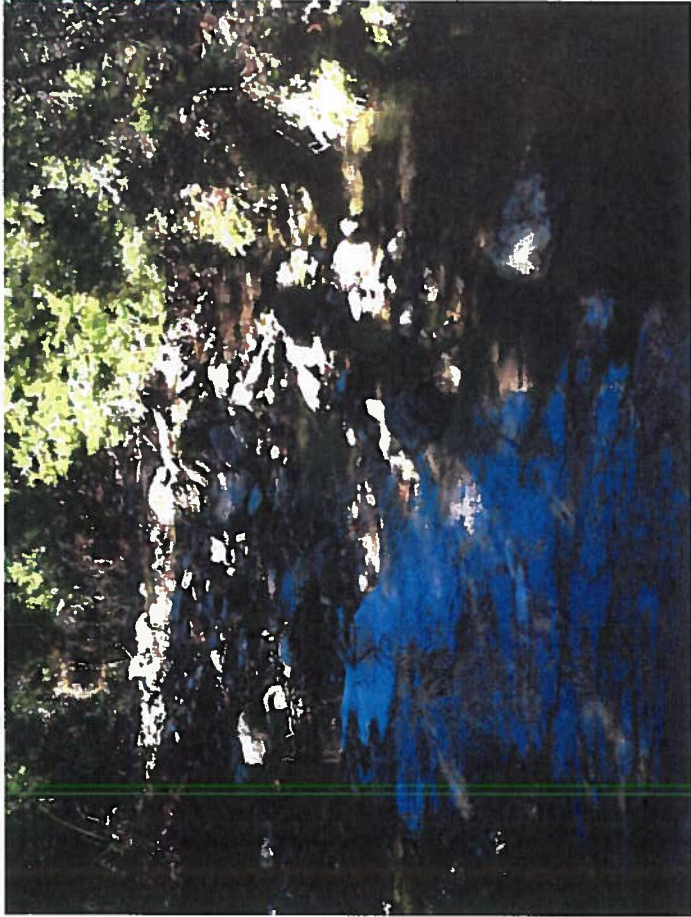


Lanier Spring

Lanier Spring Troll

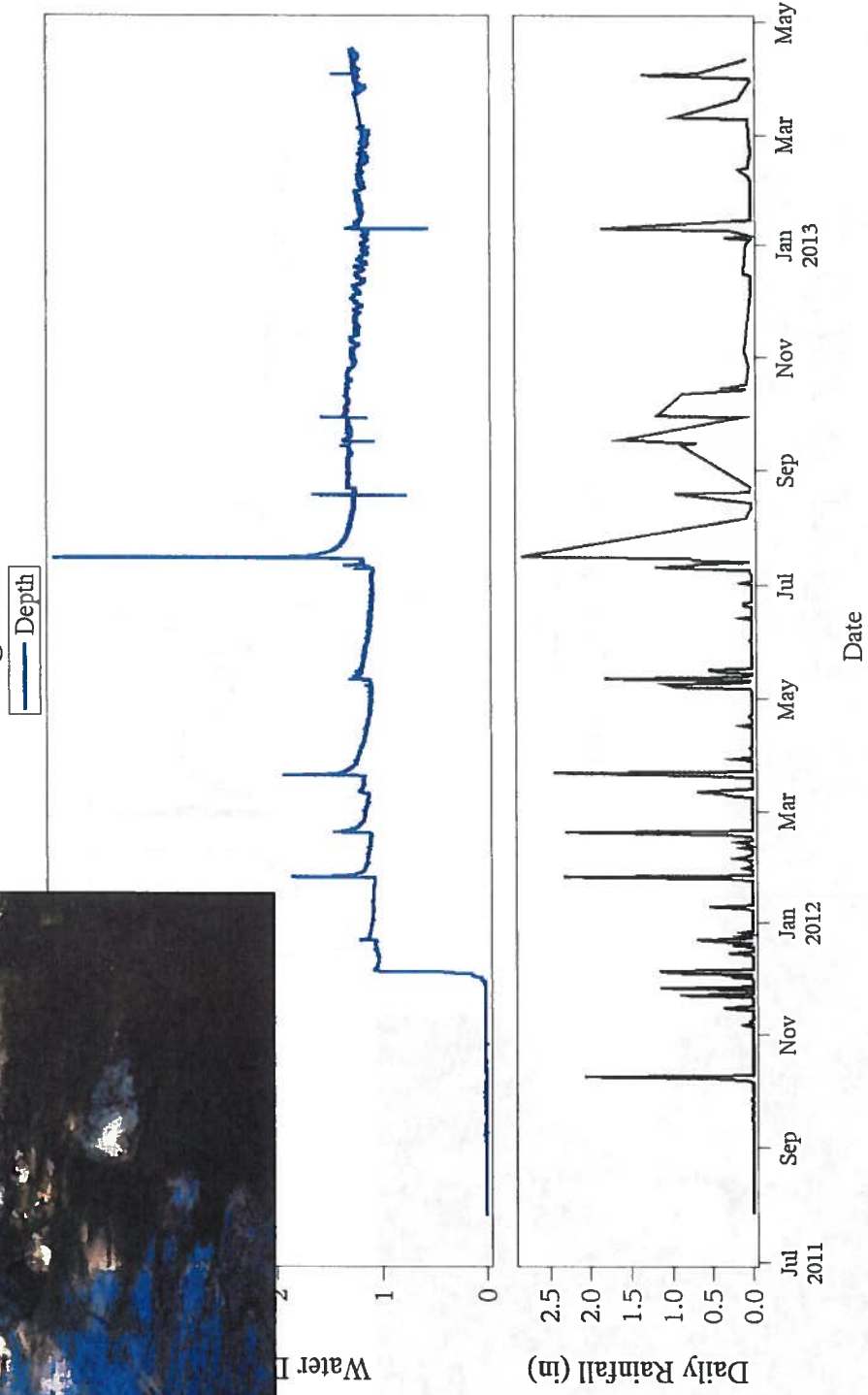


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Bull Creek @ Trib 7 (Pit Spring proxy)

Bull Creek @ Trib 7, Troll

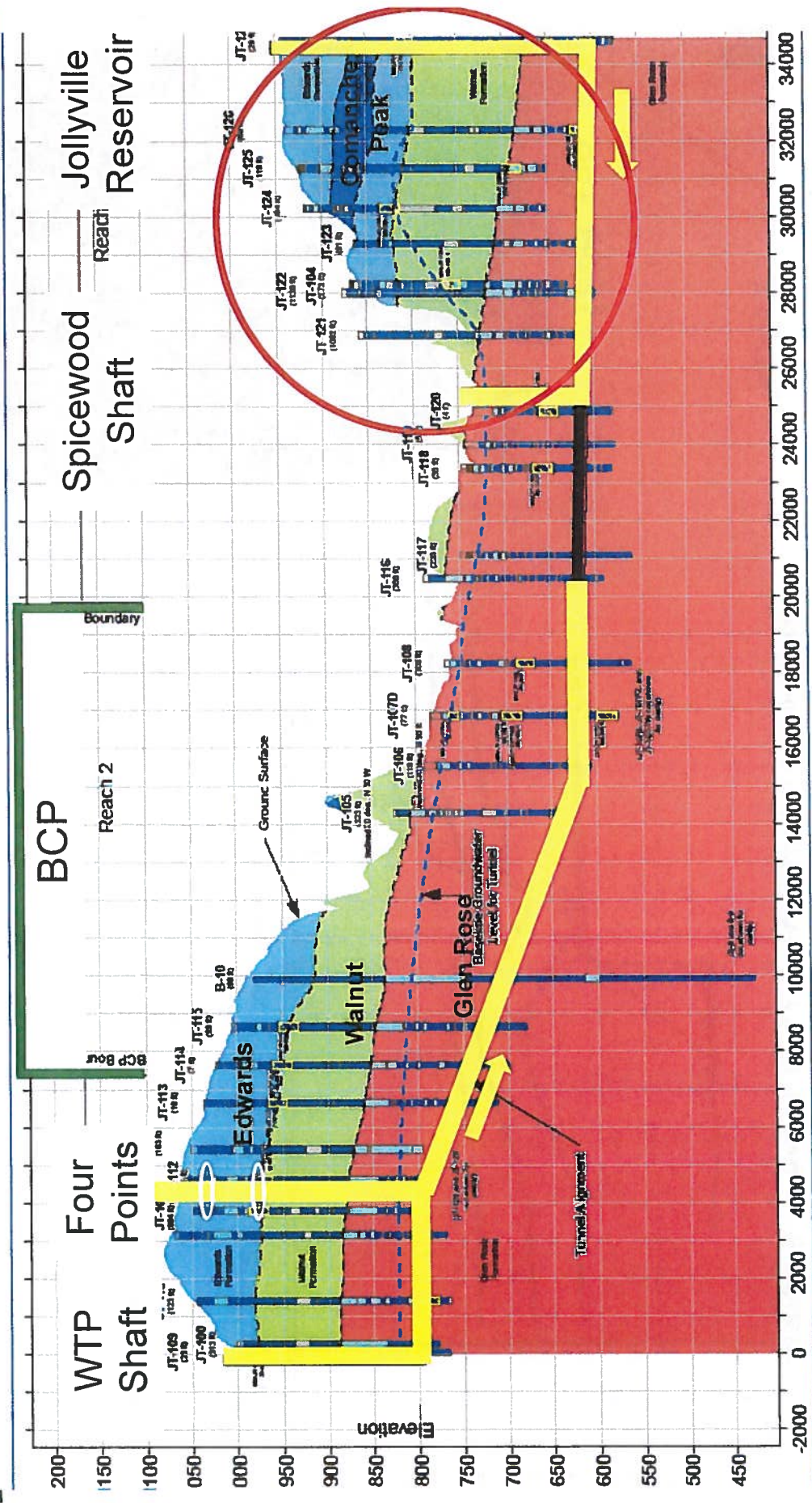


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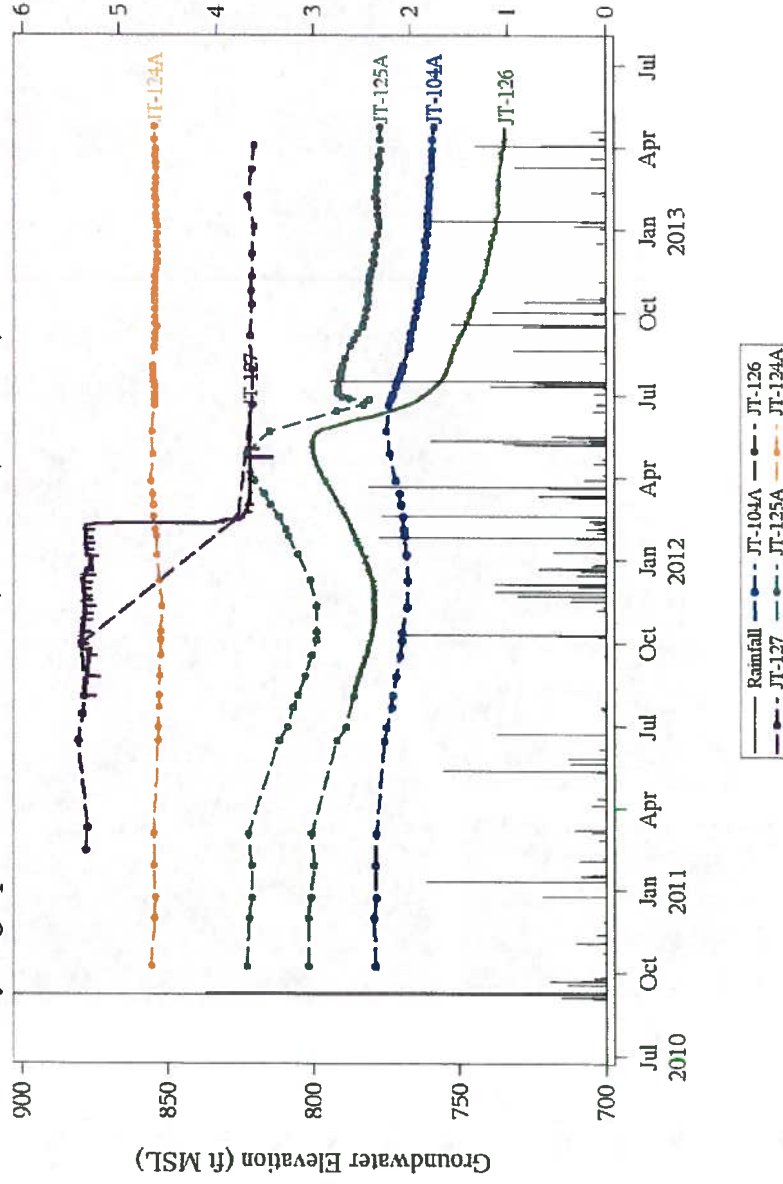
East Side Wells

 = progress



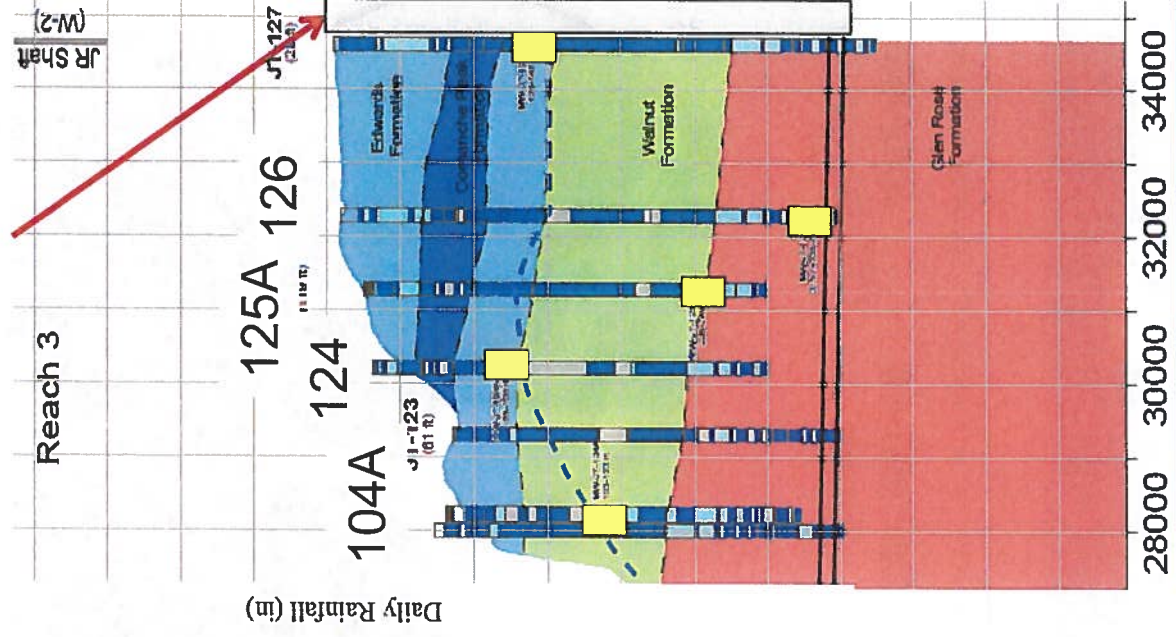
East Side Wells

Hydrographs for Wells JT-104A, JT-124A, JT-125A, JT-126 and JT-127



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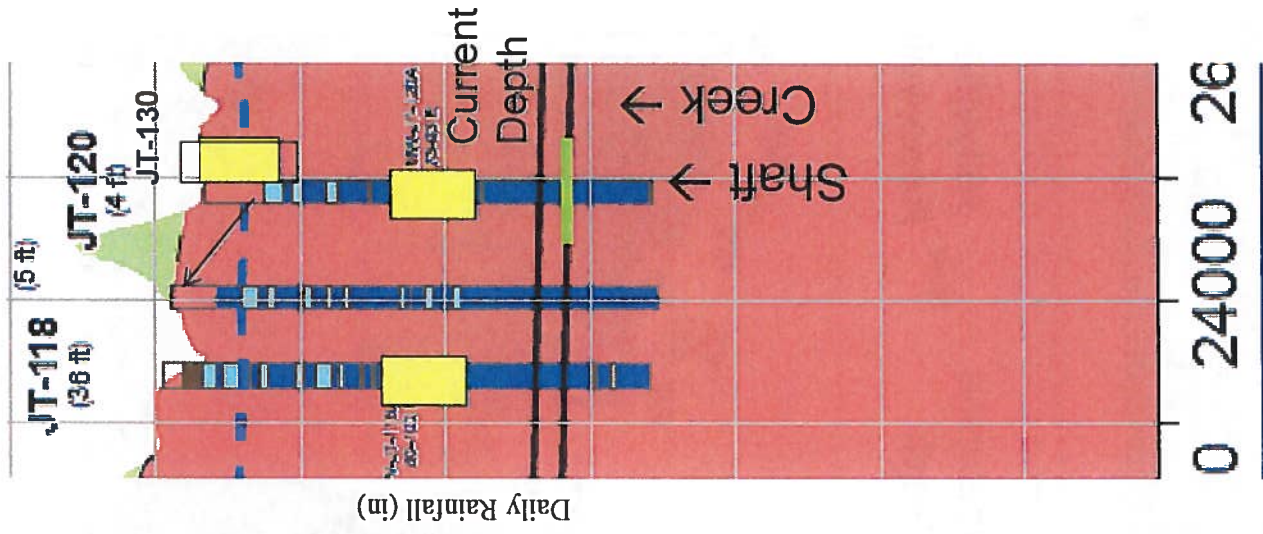
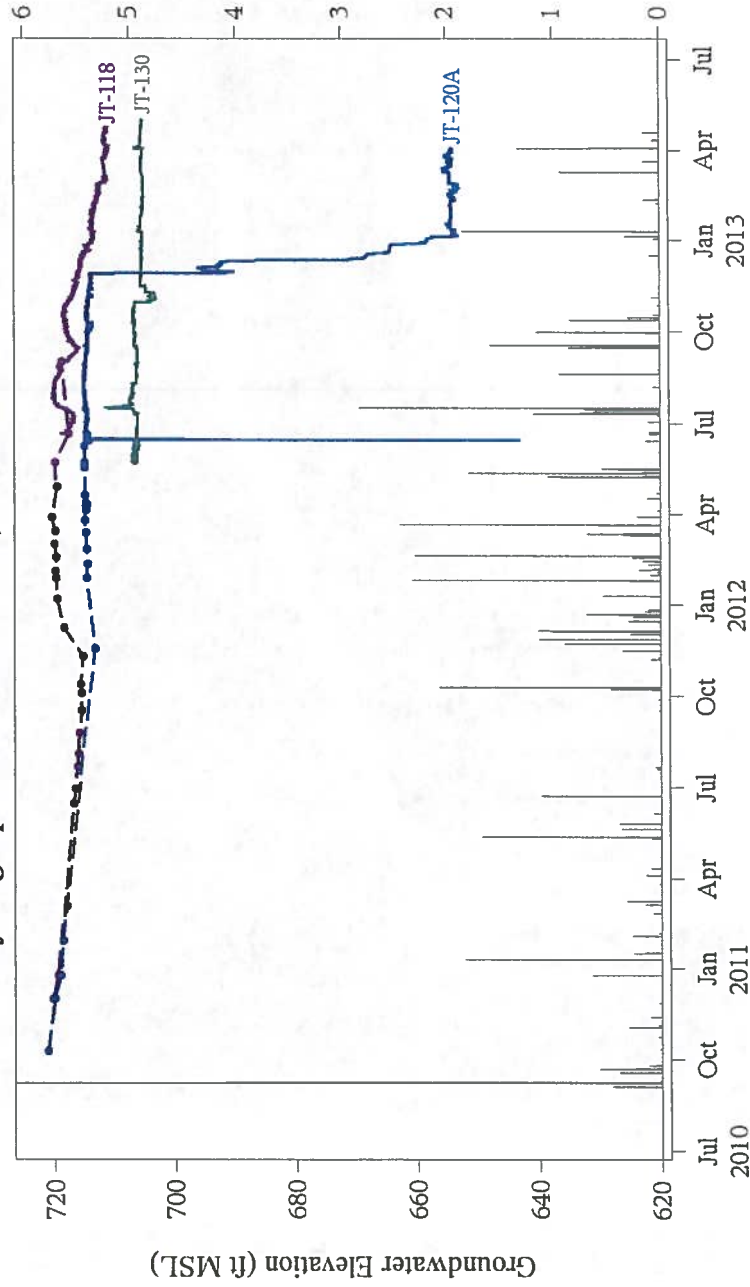
Jollyville Reservoir Shaft



- Reach 3 complete - progressed past all wells
- 126 and 104 declining and possibly leveling out
- 125A leveling out
- JT-124 Edwards well level relatively flat.

Spicewood Shaft Wells

Hydrographs for Wells JT-118, JT-120A and JT-130



- JT-120 is located adjacent to the shaft and screened well below JT-130 screen (liner plates down to 70 ft below ground, JT120A screened from about 73-93 ft below ground so shaft is now well below bottom of 120A)
- 118 decline partly due to shaft influence (~7 feet)



Environmental Monitoring Update – Surface flow



- All springs and stream reaches flowing but low due to drought. Water quality parameters within expected ranges
- Nondetects for indicators of mining, vehicular operation, and drilling (TPH, Cu, Cr, Zn)
- Nondetects for di-n-butyl grout compounds in JT-112, Gaas spring

**Trib 4 downstream from Spicewood Shaft
January 22, 2013**



Jollyville Plateau Salamander Monitoring

Site	Date of Last Count	Recent Count #	Historical Average (& last four counts)
Lanier	Sept 7, 2012	100	66 (100,56,48,59)
Franklin/Pit	November 2012	146	102 (39,100, 180,267)
Tanglewood	August 2012	1	2 (0,0,3,1)
Lower Ribelin	September 2012	94	89 (176,43,42,94)
Upper Ribelin	May 23, 2011	75	85 (123,74,67,75)
Trib 4 @ Spicewood	March 2013	6	2 (0,0,1,6)

-- provided by Nathan Bendik, Salamander Biologist for WPD



JVTM Environmental Monitoring Summary (cont.)

Trigger	Range	Recent Occurrences
TROLL Alarms (107, 130)	Outside of range of historical variability	None
Tunnel Inflow Triggers	Baseline water inflow triggers: 50 gpm over 10 feet of tunnel length 200 gpm over 500 feet of tunnel length 400 gpm over a single tunnel reach (1, 2, or 3) Sensitive area triggers: 25 gpm over 10 ft of tunnel length 100 gpm over 500 ft of tunnel length	Water inflows ~0.15 gpm over entire length of Reach 2 tunnel; ~0.2 gpm Reach 3
Spring/Streamflow Triggers	Relative to one another; paired comparison analysis	All surface sites responding consistently with rainfall and general trends



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