

Lennberg - DNR, Patrick <patrick.lennberg@state.co.us>

TMOP East Groundwater Levels - 12092021

1 message

Dan Tucker <dan@agraco.net>

Thu, Dec 9, 2021 at 11:01 AM

To: "Lennberg - DNR, Patrick" <patrick.lennberg@state.co.us> Cc: Kent Ricken <kent@agraco.net>, Jerald Schnabel <jerald_schnabel@castleaggregate.com>, HB Humphries <hlhumphries2@comcast.net>, Matt Tolle <matt@agraco.net>

Good Morning Patrick,

Please see the attached groundwater level data from the Pueblo East pits. We were able to collect water levels from all but one of the wells. Well MW - 7 was not found, and may have been impacted by mining at some point in the past. Three of us tried to find it and couldn't. We'll make another effort next month to locate the structure.

Thanks, Dan

Daniel Tucker, P.E.,

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2 attachments

Pueblo East Groundwater Levels - 12092021.pdf 771K

PEP Water Level Monitoring Phases 1 & 2 (ID 2022).xlsm 5436K

Phase 1 Area 0 5 Depth to water from ground surface (feet) 10 15 20 25 30 35 40

Figure 2 Castle Concrete Aggregates - Pueblo East Pit - Monitoring Wells Depth to Ground Water

Notes:

-Several wells, including MW-6, 7, 70bs and 10, have either been mined through and abandoned or are inaccessible and are no longer measured. -Significant decrease in depth to ground water in wells in September 2018 due to cessation of dewatering activities at the Phase 1 pit.





Phase 2 Area 0 5 Depth to water from ground surface (feet) 10 15 20 25 30 35 40 712014 1/2015 1/2016 712016 1/2004 712015 7/2018 1/2002 1/2018 6,0017,0017,V 2,200,1203,1203,

Figure 3 Castle Concrete Aggregates- Pueblo East Pit - Monitoring Wells **Depth to Ground Water**

Notes:

-Several wells, including MW-1, 199, 2, 3, 4, 5, 6, 7 and 7Obs have either been mined through and abandoned or are inaccessible and are no longer measured. -Wells MW-1, MW-2, MW-3, MW-5, and MW-199 were located within the slurry wall, and are not representative of local ground water conditions after November 2008. -MW-4R is located at higher elevation than MW-4, resulting in a greater depth to water than in MW-4. Offset between MW-4 data in May 2010 and MW-4R data from July 2011 to present are the result of differing ground surface elevations. -Depth to water for MW-101,102,103 and 105 assume the same measuring height above ground surface as MW-1,2,3 and 5, respectively.

-Significant decrease in depth to ground water in certain wells in September 2018 due to cessation of dewatering activities at the Phase 1 pit.





Phase 7 Area 0 5 Depth to water from ground surface (feet) 10 15 20 25 30 35 1/12010/10/2010 11/2012/11/2012 40 711/2006 711/2009 7/1/2014 711/2016 1/1/2002 7/1/2002 711/2003 1112004 711/2004 1/1/2005 7/1/2005 1/1/2006 1/1/2007 7/1/2007 1/1/2008 7/1/2008 1/1/2009 7/1/2011 1/1/2013 711/2013 1/1/2014 1/1/2015 711/2015 1/1/2016 1/1/2017 711/2017 1/1/2018 7/1/2018 1/1/2003 1/1/2011

Figure 4 Castle Concrete Aggregates- Pueblo East Pit - Monitoring Wells Depth to Ground Water

Notes:

-Increase in depth to water starting in late 2012 due to beginning of dewatering operations at Phase 7.

-Greadual decrease in depth to water from late 2015 to April 2019 present due to reduction in the footprint of the dewatered area. Significant decrease in depth to ground water as of March 2021 due to cessation of dewatering activities at Phase 7 pit in October 2020.







Note: Water level measuring points for MW-101,102,103 and 105 assumed to be the same elevation as MW-1,2,3 and 5. Further clarification may be needed. Pit was flooded in July and August 2006. Recharge to recharge pit in May 2006

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Note: Water level measuring points for MW-101,102,103 and 105 assumed to be the same elevation as MW-1,2,3 and 5. Further clarification may be needed. Pit was flooded in July and August 2006. Recharge to recharge pit in May 2006

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Date

Transit Mix - Pueblo East Pit - Ground Water Elevations



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Transit Mix - Pueblo East Pit - Ground Water Elevations



Recharge to recharge pit in May 2006

Castle Aggregates Pueblo East Pit Monitoring Well Saturated Thickness

Note: Further clarification may be needed regarding the measuring point elevation. The label for each year is on January 1. Pit was flooded in July and August 2006. Recharge to recharge pit in May 2006. Dewatering was temporarily ceased in 2018, through the present.







Transit Mix - Pueblo East Pit - Ground Water Elevations



Pit was flooded in July and August 2006.

Recharge to recharge pit in May 2006