Message

From: Andrae, Bill/MKE [William.Andrae@jacobs.com]
Sent: 10/18/2021 3:44:42 PM
To: Lascola, Matt [mlascola@gpdgroup.com]; Ullinger, Heather [HUllinger@akronohio.gov]
CC: Giancarlo, Mary Beth [Giancarlo.Marybeth@epa.gov]; Reif, Marty/WDC [Marty.Reif@jacobs.com]; Klinkhamer, Christopher [Klinkhamer.Christopher@epa.gov]
Subject: RE: [EXTERNAL] RE: Gorge Dam - updated radar anomaly map with interpreted TIEBACK locations.
Attachments: CuyGorgeGeophysics=Figure4-7=ColoredStippledZonesShowingConcretesStructu....pdf

Matt – We just received the attached figure which has more detailed information regarding the concrete structures.

Cheers!

Bill

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Jacobs Challenging today. Reinventing tomorrow.

From: Andrae, Bill/MKE
Sent: Monday, October 18, 2021 8:20 AM
To: Lascola, Matt <mlascola@gpdgroup.com>; Ullinger, Heather <HUllinger@akronohio.gov>
Cc: Giancarlo, Mary Beth <Giancarlo.Marybeth@epa.gov>; Reif, Marty/WDC <marty.reif@jacobs.com>; Klinkhamer, Christopher <klinkhamer.christopher@epa.gov>
Subject: FW: [EXTERNAL] RE: Gorge Dam - updated radar anomaly map with interpreted TIEBACK locations.

Matt – Attached is the most recent version of the geophysical survey figure. I spoke with Bob Glaccum/Geosphere about an alternate location for SPT-12 and he didn't think there was any good location in that Northeast corner of the site not only because of the concrete slab but there is also numerous pipes, voids, debris, etc.

We can pass along Bob's contact information and you can call him directly to discuss potential locations for SPT-12 if that would helpful to you. Just let us know.

Cheers!

Bill

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Jacobs Challenging today. Reinventing tomorrow.

From: Robert Glaccum <rglaccum@geosphereinc.com>
Sent: Thursday, October 14, 2021 3:59 PM
To: Andrae, Bill/MKE <William.Andrae@jacobs.com>; Shim, John/KNV <John.Shim@jacobs.com>
Cc: Tortomasi, Jon/MKE <Jon.Tortomasi@jacobs.com>; Skwarski, Alison/DET <Alison.Skwarski@jacobs.com>; 'Matthew B. Glaccum' <mglaccum@geosphereinc.com>
Subject: RE: [EXTERNAL] RE: Gorge Dam - updated radar anomaly map with interpreted TIEBACK locations.

Attached is Figure 4.6 that presents the Radar Anomaly data and magnetic gradient contour map overlain by our interpreted tieback locations.
Please note in the NE Grid, that the interpreted tiebacks appear to end near magnetic high contours—this could be that they were designed to make use of the existing vertical support members of the north wall of the former Tubrine structure. I don't think that they are caused by the concrete pillar observed in TP 2/3 – I did not see any rebar protruding out and the alignments are not close enough.

No similar pattern was observed in the SW Grid mag results.
Bob

From: Robert Glaccum [mailto:rglaccum@geosphereinc.com]
Sent: Wednesday, October 13, 2021 3:29 PM
To: 'Andrae, Bill/MKE' <William.Andrae@jacobs.com>; 'Shim, John/KNV' <John.Shim@jacobs.com>
Cc: 'Jon/MKE' <Jon.Tortomasi@jacobs.com>; 'Alison/DET' <Alison.Skwarski@jacobs.com>; 'Matthew B. Glaccum' <mglaccum@geosphereinc.com>
Subject: RE: [EXTERNAL] RE: Gorge Dam - updated radar anomaly map with interpreted TIEBACK locations.

Forgot to attach map—here it is!

From: Robert Glaccum [mailto:rglaccum@geosphereinc.com]
Sent: Wednesday, October 13, 2021 3:27 PM
To: 'Andrae, Bill/MKE' <William.Andrae@jacobs.com>; 'Shim, John/KNV' <John.Shim@jacobs.com>
Cc: 'Jon/MKE' <Jon.Tortomasi@jacobs.com>; 'Alison/DET' <Alison.Skwarski@jacobs.com>; 'Matthew B. Glaccum' <mglaccum@geosphereinc.com>
Subject: RE: [EXTERNAL] RE: Gorge Dam - updated radar anomaly map with interpreted TIEBACK locations.

Hi Bill,
This latest map shows our interpreted tieback locations based on our correlation of the radar reflection data with the test pit information.
As explained in the notes, zones/tieback with weaker anomalies are faded and associated with a "?".

I studied Jon's plan view map: Test Pit 5 is located at the NE Grid area, near the stairs. His 12" pipe correlated to a strong pipe anomaly that I had mapped in the field.

Bob

From: Andrae, Bill/MKE [mailto:William.Andrae@jacobs.com]
Sent: Wednesday, October 06, 2021 1:50 PM
To: rglaccum@geosphereinc.com; 'Matthew B. Glaccum' <mglaccum@geosphereinc.com>
Subject: RE: [EXTERNAL] RE: Gorge Dam - Test Pit Work Field update 9/30/21

TP-5 looks like it is by the front gate

Cheers!

Bill

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Jacobs Challenging today. Reinventing tomorrow.

From: Robert Glaccum <rglaccum@geosphereinc.com>
Sent: Wednesday, October 6, 2021 10:40 AM
To: Andrae, Bill/MKE <William.Andrae@jacobs.com>; 'Matthew B. Glaccum' <mglaccum@geosphereinc.com>
Subject: [EXTERNAL] RE: Gorge Dam - Test Pit Work Field update 9/30/21

Thanks, these are very helpful.

Could you help me locate where TP5 is located? Thanks

We are attempting to expand (even more) the amplitudes of the mag data in TP2 (SW GRID) area too.

From: Andrae, Bill/MKE [mailto:William.Andrae@jacobs.com]
Sent: Wednesday, October 06, 2021 10:53 AM
To: rglaccum@geosphereinc.com; Matthew B. Glaccum <mglaccum@geosphereinc.com>
Subject: FW: Gorge Dam - Test Pit Work Field update 9/30/21

TP1, 4, and 5 info

Cheers!

Bill

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Jacobs Challenging today. Reinventing tomorrow.

From: Tortomasi, Jon/MKE <Jon.Tortomasi@jacobs.com>
Sent: Thursday, September 30, 2021 9:35 PM
To: Andrae, Bill/MKE <William.Andrae@jacobs.com>; Shim, John/KNV <John.Shim@jacobs.com>; Skwarski, Alison/DET <Alison.Skwarski@jacobs.com>
Cc: Reif, Marty/WDC <Marty.Reif@jacobs.com>; Nauss, Sam/NYC <Sam.Nauss@jacobs.com>; Kumar, Rajeev/NYC <Rajeev.Kumar1@jacobs.com>
Subject: Gorge Dam - Test Pit Work Field update 9/30/21

Hello team,

A long day out here at the site, but we obtained all the data needed digging 3 additional test pits, and 2 more smaller supplemental pits/trenches. Started at the revised location of TP-4, and encountered a number of interesting subsurface features, including a concrete floor running at 4' bgs with a series of vertical pipe leading down to open water below. No tie rods were encountered and the bulkhead wall was thick concrete here, and so the pit was extended north parallel to the concrete wall to see if the concrete floor continued. It did, with a shallower divider wall running between. There was also shallow perched water in this area, that quickly covered the concrete floor area. It was speculated that this area of the site may be the intakes where water was drawn up from the river. The fill encountered in TP-4 was largely construction debris (brick, block, rubble, glass, tile, etc.). We also encountered large pieces of metal plate, and other general waste, including a large electric motor, and the partially crushed container that appeared to hold grease (more on that later).

We repeated digging along the wall near TP-4 (4a and 4b) at two other supplemental trenches to see if the concrete floor continued. It did, and it appears to run for at least 65' of the length of that concrete wall. From here we moved to

location TP-5. At this location we did encounter a tie rod and whale plate approximately 6.5 below grade. We located the deadman, which appeared to be a continuous wall that ran about 7' back from the bulkhead. Rajeev can share more technical details on this location.

From here we completed our last test pit, TP-1, right near the entrance to the property. This was a small pit, as access was difficult due to the steep slope down to the river edge and sheetpile. Pit was approximately 5' x 7' and ended up about 7' deep. No tie rods encountered here.

We finished the day by backfilling and compacting all open test pits. Ruhlin and their excavator got off site around 6:30 pm this evening.

Regarding the small partially crushed drum we found. This was not obvious contamination at first, as it was not seen initially when excavated. Using a large 5' wide bucket, some debris is not clearly visible until dumped on the ground or spread out. I noticed this twisted piece of metal later on, and upon taking a closer look, it appeared to have some black tarry substance on some surfaces. Close inspection, it looked more like thick black grease, and it did not flow significantly, even after warming in the sun a bit. I made the call to pull it out of the spoils pile, as I didn't want to rebury something that could be significant contamination. We did not see any other signs of black staining or grease on anything else in the excavation. The plan for tomorrow is for me to attempt to procure a steel drum and transfer this material into it for later analysis.

Please let me know if you have any questions. Attached are the draft Test Pit logs and plan view sketches from my notes.

-Jon

From: Kumar, Rajeev/NYC <Rajeev.Kumar1@jacobs.com>
Sent: Wednesday, September 29, 2021 9:03 PM
To: Andrae, Bill/MKE <William.Andrae@jacobs.com>; Reif, Marty/WDC <Marty.Reif@jacobs.com>; Nauss, Sam/NYC <Sam.Nauss@jacobs.com>
Cc: Tortomasi, Jon/MKE <Jon.Tortomasi@jacobs.com>; Shim, John/KNV <John.Shim@jacobs.com>; Skwarski, Alison/DET <Alison.Skwarski@jacobs.com>
Subject: RE: Gorges Dam - Test Pit Work Field update 9/29/21

All,

In continuation to Jon's email below, attached are measurements of structural sections observed in Test Pits 2 and 3.

I am saved photos taken today on Sharepoint.

Please let me know if you have any comments.

Thanks!

Regards,
Rajeev

From: Tortomasi, Jon/MKE <Jon.Tortomasi@jacobs.com>
Sent: Wednesday, September 29, 2021 9:21 PM
To: Shim, John/KNV <John.Shim@jacobs.com>; Andrae, Bill/MKE <William.Andrae@jacobs.com>; Skwarski, Alison/DET <Alison.Skwarski@jacobs.com>

Cc: Kumar, Rajeev/NYC <Rajeev.Kumar1@jacobs.com>
Subject: Gorges Dam - Test Pit Work Field update 9/29/2

Quick update from the field here in Cuyahoga Falls.

All went well on our first day of test pitting. Met with Coleman (Scott Striegel) and Ruhlin folks (Scott and Joe). I went over the traffic control plan with them, and we held a lengthy H&S morning tailgate. Waited until about 10am for excavator to be delivered. Got it onsite without a hitch, no problems.

We started on location TP-3, where we found tie rods right were Rajeev predicted based on looking at the outside of the bulkhead wall, down at about 30" bgs connected to a whale plate. We dug back about 19' and located the deadman piers, and a separate foundation wall (or some similar structure behind it). We excavated over ~13' and found the next tie rod, which also extended back to 19' to a deadman. There was also a foundation or wall present about 10-12' back from the bulkhead, but it ran under the tie rods. We then dug down to ~10 feet (hit water at ~8') and found no evidence of a deeper set of tie rods.

Moved over to TP-2 next, and repeated the same process, tie rods were 13' apart, but here they extended back 19' to a long foundation wall that acted as a large, singular deadman pier. We excavated here down below the tie rods, to about 6' bgs. Both individual large test pits (both roughly 20' x 20') acted as 2 smaller test pits, as we were able to answer the questions we needed to with one larger pit.

Both excavations were backfilled before leaving the site. TP-2 was compacted and completed, TP-3 will be allowed to settle overnight before compacting it first thing tomorrow AM. Attached are our 2 test pit logs, along with pics of the plan view sketches of each pit, and a few additional pictures. We'll be back onsite tomorrow at 7am.

Let me know if you have any questions. Thanks,
Jon

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Upcoming PTO: July 9-16; August 12/13; Sept 2/3; Sept 16/17

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