

From: Beggs, Tauren R - DNR
Sent: Thursday, December 6, 2018 8:54 AM
To: Warren Hohn
Subject: RE: Aniwa Arsenic Site Followup
Attachments: 2014 REI Residual Contamination Figure.pdf; 2015 EPA Removal Figure.pdf

Hi Warren,

I figured it would be easier to provide the information through email first since you can reference the applicable figures then. Attached are two figures to reference, one from the closure request that was not recommended for closure in 2014 and one from EPA's removal. For the soil excavation EPA has certain criteria they have to base their removal action on. The normal removal criteria was excavating to 67ppm arsenic. As part of the agreement with EPA, DNR was able to get that concentration down to 20ppm. However, there is still a difference between 20ppm and what would be considered background for Wisconsin, which is the background threshold value (BTV) for arsenic of 8ppm. Therefore, EPA's removal action did a lot of significant good for the site, since there was a lot of contaminant source removal and they were able to cap (with clean soil) approximately 75-80% of the contaminated area. However, there are still some outlying areas that are above the BTV of 8ppm that is not currently capped with arsenic concentrations in soil above the BTV and direct contact standards. The residual contamination in soil in the attached 2014 REI figure is primarily based on the shallow samples collected from sample locations S-0 to S-24. The data pre-excavation needs to be evaluated and compared with the post-excavation data. After that is done, I could see some limited additional soil sampling needed to determine if the remaining areas beyond EPA's excavation would need a cap or not.

For groundwater, immediately after the EPA removal action, the arsenic concentrations decreased tremendously at monitoring well B-13R, but has since returned to elevated concentrations over the last couple years of monitoring. What has seen a decrease from an enforcement standard to primarily a preventive action limit is the most down-gradient monitoring well B-21, so it appears the groundwater plume is stable downgradient and not migrating. Not sure why you sampled the three main wells so many times; I thought per the groundwater monitoring work plan, dated January 9, 2017, that the monitoring wells were only going to be sampled in late May/early June after spring runoff when water levels are highest. Additional groundwater monitoring is likely going to be needed.

After the data is properly evaluated, a work plan should be submitted to outline what additional sampling would be completed.

I think you could provide this information to the Town next Monday at the meeting.

Regards,

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Tauren R. Beggs

Phone: (920) 662-5178

Tauren.Beggs@wisconsin.gov

From: Warren Hohn <whohntesting@gmail.com>
Sent: Tuesday, December 4, 2018 12:16 PM
To: Beggs, Tauren R - DNR <Tauren.Beggs@wisconsin.gov>
Subject: Re: Aniwa Arsenic Site Followup

Thanks for the update.

On Mon, Dec 3, 2018 at 12:25 PM Beggs, Tauren R - DNR <Tauren.Beggs@wisconsin.gov> wrote:

Hi Warren,

I understand the meeting with the Town is tonight, sorry I didn't get back to you in time to provide information for that. Now that we have quite a bit of post-remedy groundwater monitoring data, I do think we need to have a more in-depth discussion. There are some figures and data from EPA's report and from previous reports I would like to discuss with you. There were some limits to what EPA was able to do at the site for the remedy, so I would like to explain that to you. I would also like to talk you about the groundwater monitoring. We can either have a discussion first then talk to the Town about next steps or we can do it all at once. This may be easier to explain everything in an in-person meeting versus over the phone.

Regards,

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Tauren R. Beggs

Hydrogeologist & Northeast Region Land Recycling Expert

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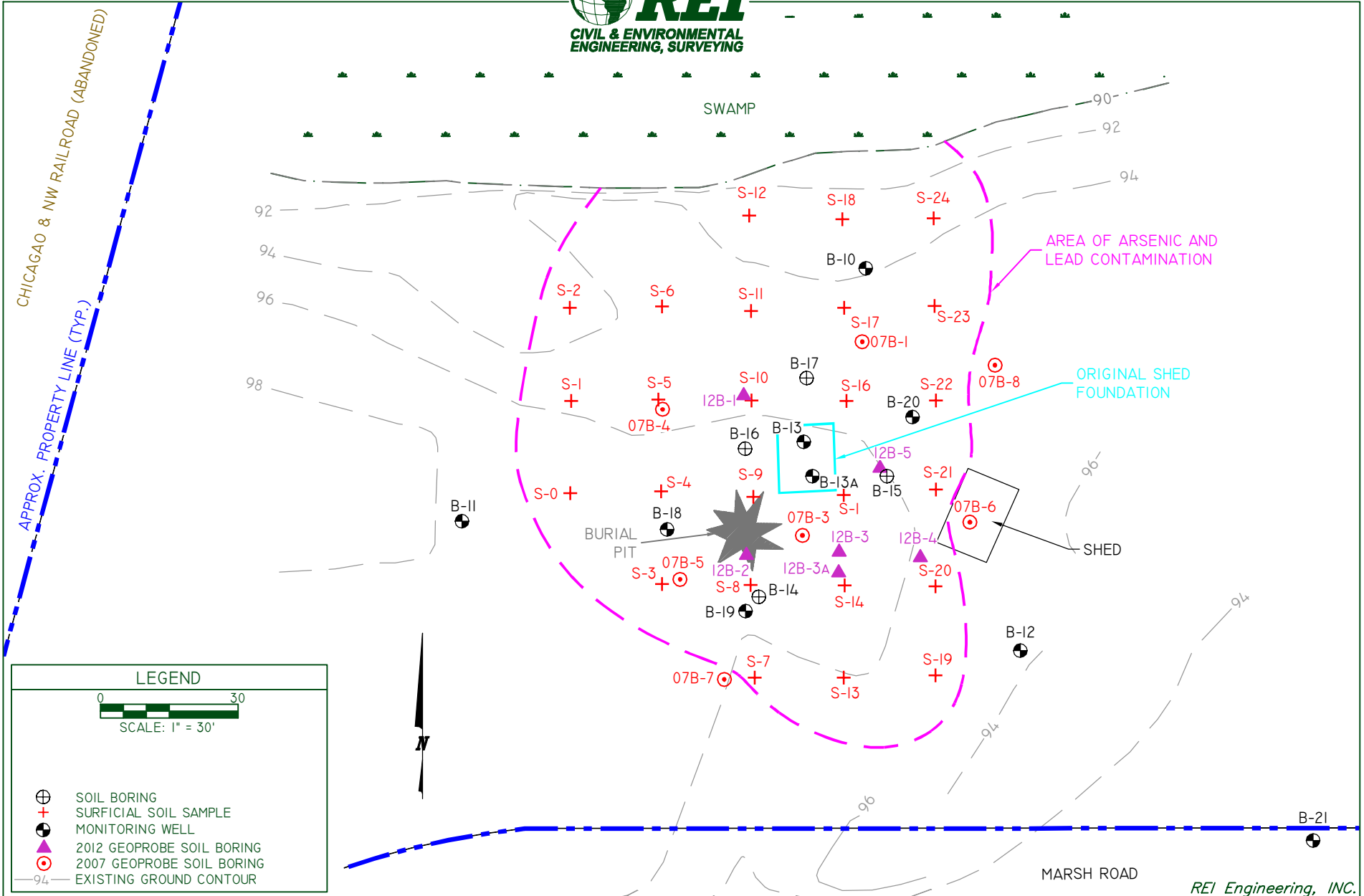
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TOWN OF ANIWA DISPOSAL SITE
 MARSH ROAD NEAR CHICAGO & NW RAILROAD
 TOWN OF ANIWA, SHAWANO COUNTY, WI

FIGURE B.2.c : PRE/POST-REMEDIAL SOIL CONTAMINATION

PROJECT NO.	6663	DRAWN BY:	TAW	DATE:	6/17/2014
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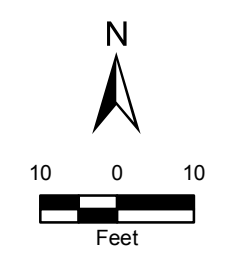
REI Engineering, INC.



Legend

- Entrance
- As ≤ 20 ppm
- As > 20 ppm

- SS-02** — Sample ID (SS=Laboratory sample, XRF=X-ray fluorescence sample)
- 2 ft bgs** — Depth of excavation in feet below ground surface (bgs)
- As:12** — Arsenic concentration in parts per million (ppm)
- 6/5/2015** — Date of sample collection



Aniwa Arsenic
Aniwa, Wisconsin

Figure 2
Selected Sampling Results

TETRA TECH

Prepared For: USEPA | Prepared By: Tetra Tech