To: Egan, Robert[egan.robert@epa.gov]
Cc: Dee.allen@ldftribe.com[Dee.allen@ldftribe.com]
From: Hanson, Kristen
Sent: Thur 2/11/2016 6:58:07 PM
Subject: RE: Tower Standard Hydraulic Conductivity Testing

Ok Bob,

I am OK with slug tests. Thanks for getting back to me.

To approve this work we would need to see REI's proposal and then will issue a conditioned approval.

Kristen

From: Egan, Robert [mailto:egan.robert@epa.gov]
Sent: Thursday, February 11, 2016 12:52 PM
To: Hanson, Kristen
Subject: RE: Tower Standard Hydraulic Conductivity Testing

Hi Kristen,

The testing proposed is for slug tests of the monitoring wells. This is typical.

I will ask WDNR is they have any testing results from the past work in the 1990s. It would be good to compare.

Also, I asked DNR to share with you the items sent to me. I will make sure they understand that we need the work plans for our files and to meet submittal requirements.

Bob Egan

Corrective Action Manager

Underground Storage Tanks Section

RCRA Branch

EPA Region 5

(312) 886-6212

(312) 692-2911 (fax)

From: Hanson, Kristen [mailto:KHanson@ldftribe.com]
Sent: Thursday, February 11, 2016 11:55 AM
To: Egan, Robert <egan.robert@epa.gov>
Cc: Kamke, Sherry <Kamke.Sherry@epa.gov>; Dee.allen@ldftribe.com; lwawronowicz@ldftribe.com
Subject: RE: Tower Standard Hydraulic Conductivity Testing

Good Morning Bob,

Chris's summary of REI's proposal describes

" Complete hydraulic conductivity calculations at all 17 wells (assume 2 hours per test)" , but does not explain what type of conductivity test. Is this a pump test?

Larry set forth the provisions for allowing State work in his December 2, 2015 letter to Margaret. The content is consistent to what was provided to the WDNR during the October 22nd meeting. The letter's conditions for work are:

1) All work plans are submitted to EPA and the Tribe;

2) EPA and the Tribe approve work plans prior to any work;

3) Coordination and notification of planned work meets Tribal requirements;

4) Tribal staff be present during all site work; and

5) All work products including results, reports, and field notes are concurrently submitted to EPA and the Tribe within Tribal Deadlines.

Conductivity testing data is needed. To approve the work we would need to see REI's proposal to issue an approval. The coordination and onsite presence requirements (both EPA and TNR) would apply to REI.

Kristen

From: Egan, Robert [mailto:egan.robert@epa.gov]
Sent: Thursday, February 11, 2016 9:26 AM
To: Hanson, Kristen
Cc: Kamke, Sherry
Subject: FW: Tower Standard Hydraulic Conductivity Testing

Hi Kristen,

Sorry I missed your call.

This is the proposal for testing the wells. Overall it looks good to me. The technique is the same that I would request from our contractor. If for some reason the tests run poorly, we would then ask for additional work. I can always have Bristol do follow up, but it will save me the funding to have PECFA pay for it.

I will ask Chris if they can provide some velocity calculations in their report, for both vertical and horizontal movement.

Please let me know if you have any comments on this.

Thank you.

Bob Egan

Corrective Action Manager

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From: Saari, Christopher A - DNR [mailto:Christopher.Saari@wisconsin.gov]
Sent: Thursday, February 11, 2016 8:55 AM
To: Egan, Robert <egan.robert@epa.gov>
Cc: Robinson, John H - DNR <John.Robinson@wisconsin.gov>; Fassbender, Judy L - DNR <Judy.Fassbender@wisconsin.gov>
Subject: Tower Standard Hydraulic Conductivity Testing

Hi Bob:

I received a cost proposal from REI to perform the hydraulic conductivity measurements that we discussed in Madison last week, and I wanted to run the concept by you to make sure it will meet the needs of EPA and LDF. In a nutshell, REI has proposed:

- Complete hydraulic conductivity calculations at all 17 wells (assume 2 hours per test)

- Data interpretation: download well specific data and conduct hydraulic conductivity calculation. Data to be presented will include copy of data download graph and conductivity calculation

- Datalogger charge: REI will be using InSitu Level Troll 500 loggers. The loggers will be atmospherically vented and will automatically compensate for barometric pressure fluctuations. REI will also use a water level indicator to collect manual measurements to ensure data is calibrated.

REI indicated that typically they run slug tests (introduce stainless slug and allow water levels to stabilize and pull the slug and measure recovery). Per Dave Larsen, some of the wells probably will recover too soon for this method and Larsen want to make sure that all parties are on board with these methods.

I should be available today if you want to discuss this, but I'll be out tomorrow. Otherwise next week would be fine, too. Thanks.

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