

## **Madakor, Nnamdi (ECY)**

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**From:** Madakor, Nnamdi (ECY)  
**Sent:** Monday, December 07, 2015 10:54 AM  
**To:** Sweitzer, Lisa (ECY)  
**Subject:** FW: Updating ISIS\_\_DSARs Horse Heaven Hills, Facility/Site Number 28995469 VCP No. CE0411, Colony claim no. 228845  
**Attachments:** Report - Groundwater Monitoring Report 2014-2015\_reduced.pdf; HHH Truck Plaza RI-FS Report FINAL2\_reduced.pdf; August 2015 Groundwater Monitoring data.pdf; Horse Heaven Hills CE0411 disapprove Revised Scope of Work Dec 7 2015.pdf  
**Importance:** High

Report: GW August 2015, GW June 2015: RI Report 5/5/14, 12/4/15 Memo Request for Teleconference –Revise Scope of Work

Ecology Opinion: Deny Revision to Scope of Work Opinion 12/7/15

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**From:** Madakor, Nnamdi (ECY)  
**Sent:** Monday, December 07, 2015 8:18 AM  
**To:** Pederson, Carrie (PLIA) <[Carrie.Pederson@plia.wa.gov](mailto:Carrie.Pederson@plia.wa.gov)>  
**Subject:** FW: Horse Heaven Hills, Facility/Site Number 28995469 VCP No. CE0411, Colony claim no. 228845  
**Importance:** High

FYI

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**From:** Annica Brown -- Vertex [<mailto:abrown@vertexeng.com>]  
**Sent:** Friday, December 04, 2015 3:39 PM  
**To:** Madakor, Nnamdi (ECY) <[NMAD461@ECY.WA.GOV](mailto:NMAD461@ECY.WA.GOV)>  
**Cc:** Rory Galloway <[RoryG@g-logics.com](mailto:RoryG@g-logics.com)>  
**Subject:** FW: Horse Heaven Hills, Facility/Site Number 28995469 VCP No. CE0411, Colony claim no. 228845

Hi Nnamdi,

Per Rory Galloway's (G-Logics) email below, I would like to set up a conference call between you, Rory, and myself to discuss the site and Rory's thoughts on revising the scope of work which was previously discussed with the previous consultant, Blue Mountain Environmental & Consulting in a meeting on April 6, 2015.

I have attached the two most recent reports which you have reviewed, along with a table of the most recent groundwater sampling data (August 2015) to provide you with some background prior to our call.

A meeting request will follow this email.

I hope you have a wonderful weekend!

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**Annica Brown, L.G.**  
Senior Project Manager

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**From:** Rory Galloway [<mailto:RoryG@g-logics.com>]  
**Sent:** Monday, November 30, 2015 10:03 PM  
**To:** [nmad461@ecy.wa.gov](mailto:nmad461@ecy.wa.gov)  
**Cc:** Peter Hapke ([peter@hapkelaw.com](mailto:peter@hapkelaw.com)); [westviewproperties@comcast.net](mailto:westviewproperties@comcast.net); Lybeer, Carol; Annica Brown -- Vertex; Karis Vandehey; [ptrabus1@frontier.com](mailto:ptrabus1@frontier.com); [carrie.pederson@plia.wa.gov](mailto:carrie.pederson@plia.wa.gov)  
**Subject:** Horse Heaven Hills, Facility/Site Number 28995469

Nnamdi,

As you may know, G-Logics has been requested to complete the necessary exploration work at the Horse Heaven Hills Travel Plaza property (Facility/Site Number 28995469). I have reviewed the provided files and understand that the next step is understood to be the installation of three additional groundwater-monitoring wells (Blue Mountain Workplan, dated May 6, 2015; approved by Ecology on August 27, 2015, letter to Miss Carrie Pederson of PLIA). Sampling of the seven existing wells also is planned, as described in the Blue Mountain workplan. With this introduction, I have two questions.

**Three New Wells.** As I am new to the project I thought I would revisit the purpose/necessity of these three new wells. Specifically, the leaking equipment (the primary source of contaminants) and a significant volume of petroleum-contaminated soils (the secondary source) were removed from the property (Spring of 2014). Seven groundwater-monitoring wells were installed (six in downgradient locations) and have been sampled quarterly. LNAPL was never detected in any of the wells. Additionally, the groundwater-sampling results show a continual downward trend, with the most-recent results (August 11, 2015) showing that DRO concentrations are below cleanup levels in all seven wells (only two wells had detectable concentrations). This data tells me the conducted remedial work has been largely successful in addressing the soil and groundwater contamination.

From the reviewed files, I can't tell if you had an opportunity to review the recent groundwater-sampling information prior to your August 27, 2015 approval. These results were published in a Blue Mountain report dated August 31, 2015 (four days after your approval). We certainly intend to continue the quarterly groundwater sampling (albeit a bit late), but I'd like to confirm that you still believe the three additional wells are needed. I'm also happy to forward the August 31, 2015 report, if you do not have it.

**With this information, do you believe the three wells are currently needed?**

**Well Resampling.** For the resampling of the seven existing wells, we will provide the related services as described in the Blue Mountain Workplan (May 6, 2015) in order to expedite our transition, subject to the following modifications.

- **Section 4.1.3** – Well-sampling methods will include use of peristaltic pump and dedicated tubing (a bladder pump would require significant decontamination between wells).
- **Section 4.1.3** – Approximately 5 well volumes will be removed prior to sampling and measurement of groundwater parameters (e.g., pH) will not be needed.
- **Section 4.6** – we would retain a Surveyor to not only provide vertical-elevation control data for the monitoring wells (tied to a local datum), but also to provide an accurate base map. This base map then can be used for plotting groundwater-flow directions and isoconcentration information.
- **Section 6.0** – G-Logics will use the current version of the MTCA regulations (2013), not the listed 2007 version.

**Do you agree with these workplan modifications?**

As hopefully you can see, and based on the technical information, I'm trying to be cost efficient and prudent with the available resources. It also appears to me that the site characterization, specifically delineation of contaminants, appears to be significantly complete. With my requests, is there something that I am missing and need to know/understand which may not be included in the provided files?

With your concurrence on the two issues (and with client approval), we will schedule the next round of quarterly-groundwater sampling. We also will provide periodic emails regarding the work timing and status.

Thanks in advance for your assistance with our transition on this project and please do not hesitate to contact me with any questions or comments.

I look forward to working with you again.

**Regards,**

**Rory Galloway**, LG, LHG, President | Principal  
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